Management of self-cutting in psychiatric inpatient wards: Attitudes of nursing staff and service users

A thesis submitted for the degree of Masters by Research (MbR)

by

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Declaration

Candidate's declarations:

I, Leah Godfrey, hereby certify that this thesis submitted in partial fulfilment of the requirements for the award of Masters by Research (MbR), Abertay University, is wholly my own work unless otherwise referenced or acknowledged. This work has not been submitted for any other qualification at any other academic institution.

Signed [candidates signature]…….
Date……..

Supervisor's declaration:

I, Professor Geoff Dickens hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of Masters by Research in Abertay University and that the candidate is qualified to submit this thesis in application for that degree.

Signed [Principal Supervisors signature]……...
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Certificate of Approval

I certify that this is a true and accurate version of the thesis approved by the examiners, and that all relevant ordinance regulations have been fulfilled.

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Abstract

Background: Self-harm is common in mental health inpatient settings. The most common form is self-cutting. Traditionally, interventions have aimed to extinguish the behaviour, but there is an increasing recognition of the need to utilise a 'harm reduction' model.

Aims: Two systematic literature reviews were conducted: i) the attitudes of mental health nurses towards self-harm; ii) self-cutting as a specific form of self-harm. A questionnaire tool was then developed which sought to measure the attitudes of mental health nursing staff and service-users towards the management of self-cutting events in mental health wards.

Methods: Systematic reviews: Three databases were searched using comprehensive terms, resulting in 18 and 26 papers respectively. Studies were critically reviewed and quality assessed. Preliminary work was conducted to identify current possible management strategies for inpatient self-cutting. Tool development: Principles from classical test theory were used to develop a tool to measure attitudes. Nurses and service users completed the tool.

Results: Reviews: Qualitative interview studies with mental health nurses revealed positive and negative attitudes; questionnaire studies displayed more progressive attitudes among nurses towards this patient behaviour than other professional healthcare groups. Improved attitudes were noted in response to training. People who cut themselves are diverse in nature. Causes of cutting include affect regulation and tension reduction, but no single theoretical model accounts for all events. As such, treatment should be person-centred. Tool development: A valid and reliable questionnaire tool was developed which revealed significant differences in attitudes both between and within participant groups, particularly with regard to the use of harm minimisation techniques in ward settings. Utilisation rates of coercive methods such as intramuscular medication and control/restraint were higher than harm reduction techniques, but approval ratings showed opposite trends.

Discussion: Disparities between the views of staff and service users might lead to management techniques that do not reflect patient priorities and may be detrimental to therapeutic relationships. Targeted training of nurses who are sympathetic to patients who self-harm may address these inconsistencies using harm minimisation strategies. Future studies should address the poor empirical framework of the various models attributed to self-cutting. The AMScQ should be further utilised to identify differing attitudes to self-harm management.

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Chapter 1: Introduction

Self-harming behaviour raises debate and can be a contentious issue in mental health services for both staff and service users. The purpose of this thesis is to explore the management of and attitudes towards self-harm by these two groups (the terms patient and service user will be used interchangeably throughout). The thesis will begin by introducing self-harm in an overall sense; considering definition, prevalence, models, assessment and treatment of self-harm within mental health nursing. The focus will then be narrowed through literature reviews and an investigation of the current state of academic evidence on both self-cutting as a specific form of self-harm, and on mental health nurses' attitudes (as a distinct group within healthcare staff). The development of a questionnaire specific to the attitudes of both nursing staff and service users on the management of self-cutting in adult mental health wards will be described and then the results of this discussed. The thesis will conclude with an examination of how the results sit in the context of existing literature on the topic and what this indicates in terms of clinical implications and further research.

1.1 Definitions of self-harm/self-injury

The definition of the terms self-harm and self-injury have changed throughout the decades and vary today depending on author and literature. Commonly used alternatives include non-suicidal self-injury (NSSI); self-mutilation; deliberate self-harm; parasuicide and self-wounding. Nock (2010) describes how, more recently, the literature has come to categorise and classify self-harm. The first divide is between behaviours that are intentionally harmful and those in which harm to self is a by-product, while the second is between NSSI and harmful behaviours committed with suicidal intent or ideation. These categories are further complicated, however, by the difficulties inherent in measuring intent prior to an act of self-harm (Latimer, Meade and Tennant, 2013). Furthermore, the variety of definitions blurs these distinctions and complicates understanding of what exactly is meant by self-harm. For example, Bosman and van Meijel (2008) distinguish between the terms self-injury and self-harm, describing the first as having non-suicidal intent but causing damage to the body in a non-life

threatening manner while in the midst of distress, where the second is more all-encompassing, including indirect harm and overdose.

For the purpose of this paper, the designations of self-injury and self-harm will be used interchangeably and as per the widely utilised definition provided by Fontaine (2003, p.221), to indicate 'the deliberate destruction of body tissue without conscious intent of suicide'. This excludes self-harm which has arisen through the misuse of drugs and alcohol, or eating disorders and in which the harm is inflicted upon oneself by a person whose injuries result from psychosis, or who has learning impairments. (National Institute for Healthcare and Clinical Excellence: NICE, 2011).

Nock (2010) summarises past literature, stating that skin cutting is the most common form of injury, usually with a sharp instrument such as a knife or razor. Self-harm can vary in its precise nature and severity. For example, Wanstall and Oei (1989) describe 'delicate wrist cutting' as a non-fatal means of self-harm, in which the individual causes relatively superficial lacerations, most commonly to the wrists but occasionally other areas of the body. Other methods include causing abrasions to or burning the skin, trauma induced by biting or hitting oneself or the insertion of foreign objects into one's own body. This list is not exhaustive however and individuals wishing to cause harm can be creative in their approach. Tantam and Whittaker (1992) note that those who self-wound may be disinclined to care for the injury and may prolong the healing process, or might be nonchalant regarding the long-term effects of their actions. Self-harm can be classified as either mild, moderate or severe (Nock, 2010) and these gradations are indicated by both the frequency and the severity of the damage, examples being superficial wounding or that which requires medical attention.

1.2 Self-harm becoming part of DSM-5

Non-suicidal self-injury (NSSI) has been proposed as meriting its own diagnostic category within the Diagnostic and Statistical Manual of Mental Disorders; Fifth edition (DSM-5; American Psychiatric Association, 2013) for a number of reasons (Cohen, 2014). The action has now been recognised as

more than simply a result of suicidal tendencies or symptom of borderline personality disorder. In terms of prevalence and the impact in a clinical setting, it is common enough to justify a distinct classification. Tantam and Whittaker (1992) also describe propensity for self-injury as a classification separate from other personality disorders, or at the very least query whether it may form part of a larger (currently unrecognised) impulsivity disorder. Cohen (2014) suggests that in viewing NSSI in this way, treatments and therapies can be more targeted and tailored to those who require them, as well as incentivising further research and generating greater awareness. The author notes, however, that NSSI has yet to be specifically defined, but instead has been added to the section of the DSM-5 that records conditions requiring further study before it can become an official psychiatric diagnosis.

1.3 Prevalence and financial implications

The prevalence of self-harm is difficult to measure; the activity may be performed secretively without the requirement for, and subsequent record of, medical intervention. Official figures for self-harm in the non-clinical adult UK population vary slightly; the Information Centre for Health and Social Care (2007) describes life-time rates of self-harm as 3.7% for males and 3.8% for females while Meltzer et al (2002, in Pitman and Tyrer, 2008) places the figure at 6.6%. Prevalence figures in the USA are at a similar level; 4-6% (Briere and Gil, 1998; Swannell et al, 2014), in the general population, which increases to 21% for those within a clinical mental health setting (Briere and Gil, 1998). In the UK, NICE (2011) indicate that individual episodes of self-harm are costly to the NHS, with single admissions costing up to approximately £4200. The financial implications of (surgically) treating severe self-harm are noted by O'Leary et al (2014) who calculated the costs associated with each episode; considering length of hospital stay, actual surgical procedures and the necessary post-surgery follow-up, 21 patients represented 42 episodes with total costs ranging from £250 to £6500 per episode.

1.4 Aetiological models of self-harm

Clinicians and academics have long deliberated the cause of self-harm, and a number of models have been developed in an attempt to understand the

behaviour. The models can be loosely clustered into four categories: social/interpersonal relationships, affect regulation, drive models and other (Nock, 2010; Suyemoto, 1998).

1.4.1 Social models

Nock (2010) describes two social models of self-harm. The first is social learning, in which the behaviour is adopted having been seen in others; peers, family, the media. Deliberto and Nock (2008) state that from an adolescent test population, around 38% were influenced to harm by friends while around 13% engaged in self-harm following exposure to the idea via media. The second is social signaling, in which self-injury is portrayed as a means of communication to others. Similarly, Klonsky (2007) describes the interpersonal-influence model in which the behaviour is used directly as a means of manipulating others, be that to elicit affection or a caring response; to avoid perceived abandonment or to directly communicate distress to others.

Suyemoto (1998) considers the psychology that underlies the social aspect of self-harming behaviour and identifies a number of theories. These include the concept that self-harm is linked to stages of childhood social development; an example being if key aspects of this are interfered with, such as a child's ability to establish secure attachments or the acquirement of what Suyemoto (1998, p.547) terms ‘stable object representations'. This then has ramifications for the person as an adult in terms of maintaining boundaries, having a sense of their own identity and the maturation of autonomy. Perceived conflict or abandonment can lead the person both to anger and an attempt to communicate their emotional hurt to others, plus guilt and shame associated with behaving in this way. The process of self-harm acts as a bridge between what is experienced internally and manifested externally. It is an autonomous action and one that establishes boundaries and for some, a sense of belonging to a wider social group, for example, being ‘a cutter'. Wanstall and Oei (1989) describe a number of studies that narrow the poor attachments down to the maternal figure, stating that a significant number of people who cut reported their mothers to be obsessive, aloof and disinclined to spend time with their children in any emotionally meaningful way.

1.4.2 Affect Regulation models

The second model commonly linked with self-harm is that of affect regulation. Nock (2010) describes a relatively basic, pragmatic rationale for the behaviour, performed because it efficiently brings the individual back to a calm and reasonable state of being. Klonsky (2007) suggests that this action occurs in individuals where either the environmental or the biological background predisposes towards it. Again, Suyemoto (1998) delves deeper into the potential psychological processes that underlie the behaviour, suggesting that self-harm as a method of affect regulation is effective because it acts as a means of expressing a negative emotion, which the person cannot verbalise. The person is able to take an unseen, emotional pain and turn it into a visible cut and a palpable sensation. This harm also allows the person to regain a sense of control over their experiences and to govern their own emotions.

Self-harm in terms of affect regulation can be described as a way of coping with or ending dissociation linked to unmanageable emotional states (Suyemoto, 1998; Swannell et al, 2012); for example, with the sight of blood following a cutting event. Equally, the behaviour may invoke a desirable, dissociative state, which allows a person to distance themselves from the painful emotions by externalising them. Chapman, Gratz and Brown (2006) define an experiential avoidance model based on the way in which a person who self-harms responds to difficult emotional states. They might avoid the emotion completely, due to a lack of alternative, effective coping strategies. Alternatively, they may have the necessary skills to deal with the issues usually, but be unable to implement them during periods of high arousal. Chapman, Gratz and Brown (2006) therefore describe a scenario in which a stimulus leads to a negative emotional state, which compounded by poor regulation of distress and high levels of arousal is managed using avoidance by means of self-harm. The success of this method leads to both negative reinforcement and becoming accustomed to the negative aspects of the act.

1.4.3 Drive models

The third grouping of models that attempt to explain self-harm describe some form of drive. The first (Suyemoto, 1998; Klonsky, 2007) is the anti-suicide

drive, whereby self-harm acts as both a means of mastering destructive tendencies and as a compromise rather than ending one's own life. The second is related to the sexual drive and is based largely on Freudian theory. This model arose as a means of understanding why self-harm appeared to be a predominantly feminine pursuit (in early self-harm literature) and presumed that the active execution of causing oneself to bleed acted as an antithesis for the passive process of menstruation; the female being able to control and regulate the blood loss.

A recent literature review (Blasco-Fontecilla et al, 2014) has proposed an addiction model of self-harm based on the premise that similar to such concepts as substance addiction. Self-harming behaviour is subject to tolerance, withdrawal and relapse and can be quantified as a behaviour which occurs through issues of control (or lack thereof) and continues despite considerable unfavourable consequences. Blasco-Fontecilla et al (2014) advance their theory by describing both literature which links self-harming behaviour to neurobiological factors such as motivational systems within the brain (for example, the dopamine reward system) and psychological factors such as sensitisation, whereby triggers for the harm occur more easily while the related behaviour conversely becomes more severe.

1.4.4 Other models

Two further models of self-harm are described which do not fit neatly into either the social, affect regulation or drive theories. The first is injury as a self-punishment; a means of chastising oneself for perceived wrongdoings or self-criticisms (Nock, 2010; Klonsky, 2007). Nock (2010) queries whether this form of self-injury arises following criticism from others, resulting in a person learning to respond in this way. The second is an analgesic effect whereby self-harming behaviours induce elevated endorphins within the body, potentially causing a sensation of euphoria (Nock, 2010). This may account for cases where self-injury increases in frequency or severity as the person becomes desensitised to the effect.

1.4.5 Aetiological models of self-harm - conclusion

The individual models of self-harm have varying levels of merit. Some, such as those based on the Freudian theory regarding menstruation are merely speculative while others such as Chapman, Gratz and Brown (2010) experiential-avoidance model have their roots in actual data. However, all the models may be relevant at some point (Klonsky, 2007). The function of self-harm might change within one person across time, or it may serve several different purposes in one go. Various methods may be utilised to deal with one single issue. Equally, self-harm as a response may evolve within one person as circumstances change or habituation occurs. Although a mode of self-harm can be similar in two people, it may serve very different motives.

1.4.6 Future research and the development of combined models of self-harm

Klonsky (2007) recommends that future research on models of self-harm consider independent functions more fully, extrapolating on the intra- and inter-personal factors and considering the extent to which the relationship between affective state and active response is causal. The author states that a move away from retrospective studies is necessary and future researchers might instead use methods such as daily logs to gather real-time information on the precursors to, functions of and effects resulting from self-harm. Conversely, Nock (2010) identifies a move towards considering models that examine the ways in which risk factors interplay, giving the example of genetic factors and how they merge with environmental factors, rather than considering the elements individually. An example of this is the recently developed four-function model of self-harm (Bentley, Nock and Barlow, 2014) which posits four distinct but inter-related factors which reinforce self-harming behaviour; automatic function and social aspects which can both be subject to positive and negative influence. The four function model takes a more holistic approach to self-harming behaviour, and many therefore guide treatment in a more meaningful manner, although the authors note that experimental studies in relevant interventions are required.

1.5 Assessment of self-harm

There are numerous difficulties inherent in assessing self-harming behaviours in terms of the risk to a patient's well-being; their recovery and their placement on a mental health ward or within a mental health community team. NICE (2011) offer explicit guidelines for the assessment of self-harm and state that various factors need to be considered. In terms of risk of further self-harm, it is suggested the frequency, severity and placement of the current injury be considered, alongside previous self-harming behaviours and any previous or current suicidal ideation. Additionally, NICE (2011) state that risk assessments should examine the individual and social context in which the harm was carried out, factors that may safeguard against or increase the risk of further harm and the presence of additional mental health symptoms.

Compared to other identifiable (or visual) symptoms of mental ill health, such as the presence of a psychotic episode, incidents of self-harm are typically carried out when the person is alone. Although the action may be repetitive, it can also be sporadic in nature and subject to external stimuli which might be difficult to anticipate (Nock, 2010). Equally, the reliance on self-report of self-harm, be that with scales or interviews can be problematic. Individuals may under- or over-report the frequency and severity of their harm, depending on incentives and social desirability bias.

As mentioned previously, self-harm can fulfil a range of roles both between people and within one person. Suyemoto (1998) therefore highlights the difficulties in the assessment of self-harm and picking apart the motives; why a certain action, at a certain time, to fulfil a certain function, in a certain person? In a meta-analysis of risk factors associated with self-harm, Fox et al (2015) warn against mistaking correlational factors with actual predictors of risk. They use the example of emotional dysregulation. If it occurs as a predecessor to self-harm, it can be a useful tool for predicting future actions. If it occurs concurrently, however, its presence is less useful in assessing risk or informing a professional response. The authors go on to state that following their meta-analysis, previous self-harm was the strongest indicator of future injury (at an

odds ratio of 6.0, indicating those who had self-harmed historically were six times more likely to repeat the behaviour). Meanwhile, a feeling of hopelessness was also significant (odds ratio of 3.0, indicating those that describe this risk factor were three times more likely to self-harm). Fox et al (2015) state that continuous appraisal of risk is more effective as a predictor of future action than single or sporadic assessments.

NICE (2011) also recommend a more holistic assessment (beyond mental health issues) for those who have harmed recently, which includes consideration of physical health concerns, family circumstances, psychosocial and day-to-day functioning, and how appropriate a psychological intervention may be. Attention should be focused on the person's strengths; what they are able to do for themselves and how they have managed to cope thus far. Care planning (with regular reviews) is encouraged, in collaboration with the person who has self-harmed and if possible, with the people who are significant in their life.

The difficulties in the assessment (and potential admission or detention) of a patient who self-harms are noted by Tantam and Whittaker (1992) who state that the desire of the patient must be taken into consideration. Either the resulting decision could cause them to feel their needs have been met and a subsequent sense of relief and acceptance, or that they have been rejected, or their distress undermined. Either path will have consequences and implications for further treatment.

1.6 Treatment and management of self-harm

Prior to the publication of the NICE guidelines for the short-term management of self-harm (NICE, 2004), most research related to either wound or overdose management, with little guidance in place for psychological approaches to treatment and management in hospitals and in the community (Pitman and Tyrer, 2008). In considering how self-harm is currently managed, this section will consider specific treatments and techniques which have been suggested; the NICE guidelines and commentary or criticism of these; the proposal of a

harm minimisation approach, and, finally, the opinions of both patients and nurses on how the behaviour should be managed.

1.6.1 Specific treatments/techniques - psychological

A number of interventions have been posited as being potentially useful for helping those who self-harm. Bosman and van Meijel (2008) conducted a review which concluded that problem-solving techniques, dialectical behavioural therapy (DBT) and psychotherapy for long-term treatment showed positive but statistically insignificant reductions in self-injurious behaviour, with similar results for those with access to mental health crisis team. Interventions with inconsistent results or no discernible benefits included those based on cognitive-behavioural therapy models. Bosman and van Meijel (2008) note however that sample sizes are generally small throughout.

A recent meta-analysis of treatment for self-injury by Turner, Austin and Chapman (2014) considered a range of psychotherapies in which the aim was to reduce frequency and severity of harm, if not to cease it completely. The authors described six papers investigating the effects of DBT on self-harm without suicidal intent and found mixed results. Some reported sustained reductions in rate and frequency of self-harm, but others demonstrated effects indistinguishable from control groups. Successful results were noted in two studies utilising emotion regulation group therapy, which heralded reduced self-injury in both the short and long-term. One study each described reduced self-injury in manualised assisted cognitive-behavioural therapy, voice movement therapy and dyadic developmental psychotherapy.

Suyemoto (1998) makes recommendations for psychotherapeutic approaches, based on which model of self-harm is most appropriate at a given time. With regard to there being a social or interpersonal context to the behaviour, various factors are considered. If modelling by parents (or indeed other patients) has reinforced the link between self-harm and the receipt of care, Suyemoto (1998) highlights the importance of interactions and cites DBT as the primary treatment method. In this therapy, social skills and behaviours are considered and targeted for modification, and mechanisms taught for distress management and

emotional regulation. There is also the issue of addressing the secondary gains associated with reinforcing self-harming behaviours by having patients consider their response as part of a condition, rather than in any positive light. Where boundary setting has become confused, misinterpreted, or is simply absent, Suyemoto (1998) describes the therapist and the therapeutic relationship as the key consideration. The therapist must assume the role of a transitional object for the patient; something which can be used as a means of identifying and soothing one's anxieties. This is traditionally a teddy or blanket in one's youth and something more subtle and esoteric in later life. This is described as a very delicate relationship however, with a high likelihood of transference and countertransference, in which the therapist should engage with their own professional support system.

When affect regulation is the primary driving force, Suyemoto (1998) states that treatment should be centred on helping those who self-harm to find alternative ways of expressing their emotions and articulating their needs. Again, a therapeutic relationship is key in developing and maintaining this, and the emphasis should be placed on understanding the function of the behaviour, as opposed to the psychology that underlies the individual behaviour. Finally, when considering the drive models, Suyemoto (1998) describes a primarily psychoanalytic approach as a means of foregrounding and understanding that which has been repressed. The author notes that this approach is generally not found to be helpful by those who self-harm. Other theorists, however, such as Bateman and Fonagy (2001) describe a psychoanalytically-based treatment as effective in significantly reducing self-harm in both the short-and long-term in patients with borderline personality disorder, compared to a 'treatment as usual' control group.

Bosman and van Meijel (2008) note the apparent urge of medical professionals to solely consider symptoms where instead the focus should be on the worth of the action and that which underlies it. This is reflected in patients' reported experiences of hospitalisation, with descriptions of simply being observed without any form of therapeutic input and a sense of being punished for their behaviour (Taylor et al, 2009). Bosman and van Meijel (2008) posit the

development of open dialogue between patient and professional, with language meaningful to both sides. Suyemoto (1998) also suggests a more psychological approach, with treatments that focus on emotion, the self-esteem of the patient, managing feelings of abandonment, and teaching people how to self-soothe efficiently. With this in mind, Suyemoto (1998) suggests that a therapist involved in the treatment of self-harm assess where the line be drawn in terms of what is an acceptable level of confrontation for the patient, the difficulty that person may have in managing ambiguity and the potential for conflict with both the desire for and fear of attachment.

The pathway to cutting is considered by Wanstall and Oei (1989) who propose a more tailored-treatment plan that links to each of the potential factors that make up the chain of events when cutting takes place. Examples include relaxation training when the individual begins to feel negative emotions, assertiveness training when they feel unable to verbalise their thoughts or feelings and help with thought stopping when the urge to cut becomes intrusive and compulsive.

1.6.2 Specific treatments/techniques - pharmaceutical

Turner, Austin and Chapman (2014) also reviewed pharmacological interventions and described positive results with some antidepressants (venlafaxine, an SNRI and fluoxetine, an SSRI), opioid and opioid antagonists (buprenorphine and naltrexone) and an atypical antipsychotic (aripiprazole). Further to their addiction model of self-harm, Blasco-Fontecilla et al (2014) describe the clinical implications of treating it in a similar manner to other forms of addictive behaviour; a combination of pharmaceutical interventions which address both addictive behaviours (gabapentin being one example) and psychological pain, such as medications which boost oxytocin levels. Suyemoto (1998) suggests that, should self-injury occur as a symptom of mental illnesses such as schizophrenia or depression, generalised pharmacological treatment should help to alleviate the urge of the patient to harm themselves.

1.6.3 Specific treatments/techniques - combined psychological and pharmaceutical methods

Finally, Turner, Austin and Chapman (2014) describe studies in which psychotherapies (primarily DBT) are successfully combined with pharmacological treatments and psychoeducation, to reduce self-injury successfully. The authors lament the small scale of experiments thus far which investigate treatments (both talking therapies and pharmacotherapies) but state that positive results certainly merit further study in the area. It is also worthy of note that most of the studies targeted those diagnosed with personality disorders, particularly borderline personality disorder, for whom self-injury was a troublesome symptom.

1.7 NICE guidelines regarding the management of self-harm

NICE (2011) offer guidelines on both the bearing and contribution of health professionals managing self-harm and potential techniques for treatment. These guidelines are not without criticism, largely because the majority of recommendations are based on level 4 evidence (expert opinion/reports) or on the consensus opinions of the development group. This is rather than high quality level 1 evidence (such as randomised controlled trials) or level 2/3 (adequately and appropriately organised trials) (Pitman and Tyrer, 2008, see below). It is advised by NICE (2011) that professionals concentrate on the therapeutic relationship so that it becomes both supportive and meaningful. They should consider the impact of both their own potential negative judgment and the wider stigmatisation that may be experienced by those who self-harm. Professionals should also encourage the patient's own aptitude and autonomy while ensuring therapeutic continuity if possible.

With regard to therapeutic interventions, NICE (2011) suggest treating associated mental health conditions, and then endorse person-centred psychological treatments including cognitive-behavioural, psychodynamic, and/or problem-solving elements. The importance of key stages of treatment is highlighted, with the suggestion that the strong feelings evoked by transitions and endings be anticipated by the therapist.

Given that the drive to self-harm may not be immediately lessened using the guidelines noted above, NICE (2011) indicate that a harm minimisation approach may be offered in the short term. Patients should be encouraged to consider alternative (less damaging) means of harm or to reduce the severity or frequency of their behaviour, while acknowledging it may not be possible to simply stop. NICE (2011) do emphasise however that this suggestion is only relevant for those who injure themselves and should not be made for those who tend to harm themselves by overdose, as there is no safe method for self-poisoning.

1.7.1 Harm Minimisation

Further to the NICE guidelines, (2011), Holley et al (2012) describe a harm minimisation approach in the treatment of self-injury. While the behaviour is neither condoned nor encouraged, the method identifies the perceived benefits of the behaviour and encourages empowerment and the development of a collaborative relationship between nurse and patient. The authors describe a trial of harm minimisation in which highly individualised care plans were drawn up describing a number of factors. These included intervention (or lack thereof) by staff members during harming events, the location of the behaviour and consideration of tools used, the necessity for medical intervention following a harming event, goal setting, potential alternatives to commonly used techniques, and negotiating boundaries. The difficulties inherent in this approach were recognised, particularly for staff who did not agree with the technique. However, outcomes of the trial included a substantial reduction in episodes of self-harm and lessening in staff anxiety/increase in staff confidence (although the paper does not clarify how this result was measured).

1.7.2 Commentary/criticism of NICE guidelines

The NICE guidelines were not without critics. Pitman and Tyrer (2008), for example, contest a number of factors both in terms of advice offered and how these came to fruition. The authors raise the point that recommendations regarding psychological care were based on only two systematic reviews and over one hundred of the recommendations made within the guidelines came from a development group (as opposed to published, high-quality research)

which did not include any registered mental health nurses. A specific example is the recommendation of DBT for those who self-harm, whereas reported provision of this therapy is inconsistent throughout the UK and access to the therapy by no means guaranteed. This may undermine the relevance of the guidelines.

Pitman and Tyrer (2008) go on to describe the significant financial impact of self-harm on health services and suggest that, given the way in which mental health is already under pressure, utilising consensus-based rather than evidence-based guidelines without feedback on how cost effective they are is not to be recommended. The point is also raised that although the NICE guidelines recognise the diversity of the self-harming population in terms of demographics and diagnosis, there are no relevant recommendations regarding how the guidelines should be adjusted or varied in response. Additionally, while the referral process for on-going care is mentioned, thus bridging the gap to intermediate and longer-term care, it is not clear whose responsibility this should be.

There are four important factors in the management of self-harm in which professionals required clarification and guidance; when should the assessment happen, who should administer it, what exactly should be assessed and what the potential follow-up factors should be. Pitman and Tyrer (2008) indicate that only the final factor was addressed in the guidelines.

1.8 Patient and nurse opinions of treatment

Given the variety of ways in which self-harm manifests, both in terms of the root causes and the behaviour itself, there have been some attempts made to measure patient opinion of how the harm is treated and managed. Equally, given that it will be largely be nursing staff who are administering the care, the opinions of those staff on the treatments should be taken into consideration. Bosman and van Meijel (2008) identified that of the available treatments for self-harm, patients favoured those which focussed on recovery, and which fostered a sense of empathy, confidence and hopefulness within a therapeutic relationship. Nurses, meanwhile, describe the most useful interventions as

those in which safety is increased, anxiety is reduced, and patients learn self-control and alternative coping strategies.

Bosman and van Meijel (2008) note that the topic of self-injury was not easily discussed between nurse and patient. Reasons given for such include nurses being concerned about reinforcing the behaviour, self-injury spreading amongst the wider client group, and the lack of time that nurses have to spend with individual patients. Other barriers to treatment include nurses' own feeling of incompetence, lack of support, feeling 'played' by the patients, or frustrations which are then picked up by the patient and could potentially cause more self-harming behaviours in response. These concerns were noted by Tantam and Whittaker (1992) who suggested that hospital treatment amongst a disjointed or potentially antagonistic staff would do more harm than good and suggest that unless warranted by crisis, an admission might best be avoided.

Proposals for and guidelines regarding treatment are convoluted and difficult to pick apart. Various techniques have been suggested, but evidence is lacking with regard to efficacy and is dogged by small sample sizes (Turner, Austin and Chapman, 2014).

While NICE (2011) proposed relatively detailed guidelines, these were developed by a consensus group that did not include the professional body who most closely interact with those who self-harm and include suggestions that cannot be implemented with any consistency. Consideration of what underlies the self-harming behaviour for an individual will affect which treatment is most effectual. Meantime patients and nurses have different priorities concerning what treatment should achieve. Nock (2010) considers the apparent lack of evidence for specific interventions as a vital component in future research on the topic.

1.9 Attitudes of healthcare staff towards self-harm

Beyond nurses' attitudes to treatment noted above, the attitudes of nursing staff towards individuals and patient groups who self-harm are the subject of a systematic literature review later in this thesis. There already exist, however,

literature reviews that consider the attitudes of medical and health professionals as a wider group, three of which will be described here.

McHale and Felton (2010) considered attitudes of healthcare staff in both mental health settings and in A&E departments. The authors found several common themes. Education, training, and lack thereof, about self-harm had a significant relationship with a poor attitude towards patients who self-harm. In addition, there was a link between a perceived lack of supervision/managerial support and negative attitudes. The authors noted the prevalence of the medical model (characterised by the focus of treatment tending to ignore psychological or environmental causes), and the emphasis on risk management as being detrimental to the development of meaningful therapeutic relationships between staff and patients. McHale and Felton (2010) noted a tendency within the literature to focus on what was not working, rather than on what methods had been successful, hence the prevalence of negative attitudes. They also highlighted, however, that healthcare responses might be coloured by a desire to provide socially acceptable answers, suggesting that the full extent of the negative attitudes may not be apparent.

Saunders et al (2012) noted that psychiatric staff generally had more positive attitudes than non-psychiatric staff and that female staff were generally more positive than male staff (although the authors note that this may be linked to the prevalence of male doctors and female nursing staff). The authors also found that female patients were generally viewed more positively than male, but repeated self-harm events were a strong contributory factor towards poor attitudes of staff.

A final review by Karman et al (2015a) considered sixteen relevant papers and found generally positive attitudes towards self-harming behaviour in six of the papers, compared to negative attitudes in ten. Positive attitudes in staff were associated with the reported sense of reward in working with this client group, and the presence of hope for recovery. Meanwhile, negative attitudes were associated with the frustration of the revolving door patient, the perceived manipulative behaviour, and the ways in which staff had to emotionally protect themselves when managing individuals who self-harm. Negative attitudes were

also found in response to the way in which self-harming behaviour affected the staffs' perceived sense of their own skill and competencies. With regard to influencing factors, Karman et al (2015a) found that results linking attitudes towards age or gender of the staff were inconclusive and contradictory throughout the various reviewed research, although further education and targeted self-harm training was found to affect attitudes positively. Recommendations following the review by Karman et al (2015a) include further education on self-harm with a focus on informative and illustrative techniques. Also recommended were allowances for time, resources, supervision and support from management and peers, so that they are better able to consider the patients' point of view. In terms of future research, the authors suggest the need for further investigation into the impact of education, preferably with randomised control trials, validated tools and a move away from self-report questionnaires.

In conclusion, existing literature reviews considering health professional's attitudes towards self-harm largely centre around three factors; the positive, the negative and points to bear in mind when interpreting these phenomena. Negative attitudes in staff are linked to a lack of education, the way in which the medical model is prioritised in health, frustrations regarding patients who do not appear to improve and the ways in which staff may feel manipulated by them. Also of note was the way in which staff are concerned that their clinical abilities are being called into question in the care of this type of behaviour, plus the need for staff protect themselves emotionally, and the lack of senior support or supervision to aid this process. Where positivity was found, it was linked to the rewards inherent in helping the patients towards recovery. There did appear to be an indication of a gender divide, in that not only were female patients who self-harm viewed more favourably than male patients, female staff were also more positive in nature compared to their male counterparts. Points to contemplate when considering the attitudes of staff include the way in which social desirability may colour the responses (with negativity being under-reported) and the need for more precise and concrete forms of evidence gathering techniques.

1.10 Justification for this thesis

This Masters by Research thesis is being completed against the background of the changing face of the provision of mental health care in the UK, specifically the increasing prevalence of self-harm and decreasing availability of mental health inpatient services (Saunders et al, 2012). The purpose of the current thesis is threefold:

i) consider the attitudes of a specific group of staff – mental health nurses – towards self-harm management given the increased exposure of the behaviour that they will encounter.

ii) consideration of self-cutting as a specific means of self-injury, and identify the implications of this in terms of factors underlying, and treatment of, the behaviour.

iii) provide an avenue for both those who engage in cutting, and those who treat this patient group, to voice their opinions on how this might best be managed in a mental health ward setting.

Existing literature reviews consider the attitudes of staff towards self-harming patients; McHale and Felton (2010) and Saunders et al (2012) considered the full range of healthcare professionals who come into contact with patients who self-harm, while Karman et al (2015a) narrowed this down to nursing staff, including adult nurses who might have little or no mental health training or experience. This most recent review recognised the need for a more targeted approach given the differing roles that each professional might play in terms of delivering targeted interventions specific to their relevant training and function. It would make sense then to further investigate the attitudes of mental health nurses as a sub-category of the wider nursing profession, given their ascendancy in this area and increased (and prolonged) exposure to this type of behaviour.

While cutting oneself appears to be the most widespread form of self-harm (or at least the most widely reported) (Gratz, 2001; Klonsky, 2007), all too commonly the behaviour is subsumed into the larger phenomena of self-harming behaviours, including those such as self-poisoning. This propensity for grouping all the methods together undermines both the multitude of causes for

specific behaviours and also the way in which mental health professionals are expected to respond to them (Pitman and Tyrer, 2008).

When considering the management of self-harm and more specifically, self-cutting, there are two points to consider; how existing guidelines might be implemented and the input of the patients themselves in how the action should be managed. Little evidence or research exists on how the NICE guidelines should be implemented, or on how effective they are (Pitman and Tyrer, 2008). Within the guidelines (NICE, 2011), however, there is a recommendation for studies which investigate the various methods of managing self-harm, including harm minimisation techniques. There is a call for randomised controlled trials to investigate potential effectiveness and utility of specific techniques, using quantity and severity of self-harm events, plus range and depth of psychological symptoms as outcome measures.

Finally, as noted by Bosman and van Meijel (2008), there is a disparity between nurses and patients with regard to which treatments are most effective; patients identify interventions which promote hope and empathy as being most beneficial, while nurse priorities lie with ensuring safety and teaching alternative methods of affect management and coping techniques. McHale and Felton (2010) reviewed the literature concerning patients' perception of their care. They found the themes identified included patient dissatisfaction as a result of not feeling valued or understood by the health professionals responsible for their care, plus the sense that although first line care was delivered (i.e. wound management). There was also little interest or incentive for staff to consider what underlay the actions which lead to the wounding. McHale and Felton (2010) concluded their review by noting the disparity between what healthcare staff and patients considered to be positive and negative attitudes and the ways in which this affected the delivery of care.

Having considered the justification for targeted research in this area, the main body of the thesis will cover three areas. The first will be a literature review regarding the attitudes of mental health nurses towards self-harming behaviours, the only analysis thus far which considers this subset of nurses

independently. The second will be a literature review on cutting, as a distinct form of self-injury, considering the epidemiology, aetiology and current management techniques and treatments. The final area will be the development and subsequent implementation of a questionnaire that can be delivered to both psychiatric patients and their nurses. This will investigate how both groups feel cutting events should be managed, with a specific focus on a comparison between different techniques and how effective these are as a means of reducing the behaviour while maintaining the dignity of the patient and the safety of all parties involved. A questionnaire format allows for the examination of quantitative data and subsequent statistical analysis of the results. The specific hypothesis being tested is that there will be a significant disparity between the two groups in their attitudes on how self-cutting is best managed.

Chapter 2: Literature Review - Part 1 - Attitudes of mental health nurses towards self-harm

2.1 Methods

A range of professionals will be exposed to a person who self-harms including psychiatrists and junior doctors, social workers, and allied health professionals. Mental health nurses and nursing assistants, however, form the core of inpatient settings, crisis teams and community mental health teams. While the input of other professionals is both necessary and valuable, patient contact tends to be periodic, as opposed to the sustained exchange and connection with the nursing staff. Previous literature reviews regarding attitudes towards self-harm have focussed on either the full range of healthcare professionals who may work with a patient who self-harms (McHale and Felton, 2010; Saunders et al, 2012) or, more specifically, nursing staff including adult nurses who may have only limited, if any, mental health training or experience. By zoning in specifically on the attitudes of mental health nurses, a more distilled view can be obtained of the staff who have the most contact with this kind of patient.

2.1.1 Literature search

The first systematic literature search strategy followed the guidelines laid out by the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA: Moher et al, 2009). The aim of the literature review was to identify all empirical studies that considered the attitudes and experiences of mental health nurses who work with patients who may self-harm. Multiple databases were utilised in the literature search, including Web of Science, Proquest Central and PubMed. A variety of search terms were used, with the use of an asterisk (*) to include all possible permutations of the terms. As the literature search was conducted with regard to adult patients, a number of terms pertaining to children and adolescents were excluded from the search. Upon filtering the papers by reading the abstracts of those that were relevant, reference lists were then searched manually to find any further pertinent research.

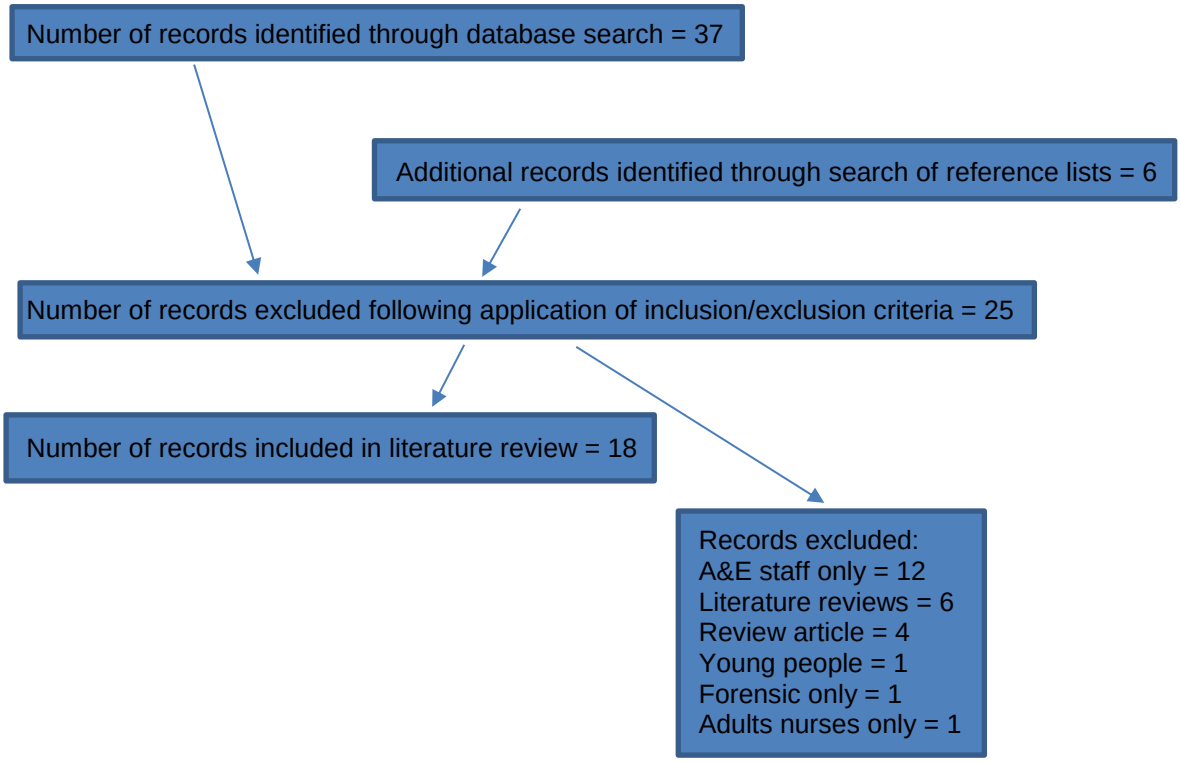
Table 1: Search terms utilised and parameters applied for each individual database.

Web of Science	Proquest Central	PubMed
Search terms		
self-harm OR self harm OR self-injury OR self injury (in Title) AND attitude* OR experience* OR perception* (in Topic) AND nurse* OR staff* OR professional* (in Topic) NOT adolesc* OR young OR child* (in Title)	self-harm OR self harm OR self-injury OR self injury (in Title) AND attitude* OR experience* OR perception* (in Title) AND nurse* OR staff* OR professional* (in Title) NOT adolesc* OR young OR child* (in Title)	self-harm OR self harm OR self-injury OR self injury (in Title) AND attitude* OR experience* OR perception* (in Title) AND nurse* OR staff* OR professional* (in Title) NOT adolesc* OR young OR child* (in Title)
Search parameters set per website search facility		
Years: All years English language	Years: All English language, limit to peer reviewed	None
Results		
18 papers	14 papers	27 papers

Table 2: inclusion and exclusion criteria applied for articles to be relevant to the literature search

Parameters: Attitudes	Inclusion criteria	Exclusion criteria
Focus	Studies considering mental health nurse attitudes towards self-harm	Any studies which did not consider mental health nurses attitudes towards self-harm to some degree
Population	Mental health nurses and health care assistants (in wider comparison against other nursing/clinical staff if necessary)	Non-nursing clinical staff Adult nurses
Setting	Adult inpatient and community mental health services	Child and adolescent mental health services, older adult mental health services, prison populations, A&E departments
Study type	Primary research Qualitative and quantitative research	Review or opinion articles Book reviews Policy/guidance documents
Language	English	Non-English

Figure 1: Flow diagram of literature search on the topic of 'attitudes of nursing staff towards self-harm'



The relevant studies were classified as either quantitative or qualitative and attributes including country, setting, purpose and sample recorded for each individual article. Please see appendices VI and VII for full details of attributional breakdown. A theoretical thematic analysis was conducted (Braun and Clarke, 2006) and each paper was also critically appraised; qualitative studies from a 13 point checklist adapted from two sources (Critical Appraisal Skills Programme, 2013; Tong, Sainsbury and Craig, 2007) and quantitative studies from a 10 point checklist, also adapted from two sources (Greenhalgh, 2006; University of York Centre for Reviews and Dissemination, 2008). Please see appendix VIII for full details of critical appraisal for quantitative studies and appendix IX for qualitative studies.

2.2 Results

2.2.1 Study characteristics/attributes

Once duplicate articles had been accounted for and inclusion/exclusion criteria applied, the literature search regarding the attitudes of mental health nurses towards people who self-harm resulted in identification of 18 studies; 9 quantitative and 9 qualitative.

2.2.1.1 Quantitative papers

Of the quantitative papers, year of publication ranged from 2000 to 2013. Three main types of aim were identified; exploring the attitudes of mental health nurses and linking these to personal characteristics (plus developing quantitative tools in this area), comparing the attitudes of mental health nurses to other healthcare professionals and assessing the impact of targeted self-harm education on attitudes towards self-harm. Three of the papers focussed solely on mental health nurses as their sample while the other six also incorporated other healthcare professionals into their sampling frame. Sample sizes ranged from 69 participants to 342. Four of the studies occurred in the UK, three in Australasia, one in the US and one in Belgium. Settings ranged from training courses to individual wards, hospitals and entire health boards. Only one study was experimental in nature, with the remaining studies tending to be correlational and cross-sectional in design. A variety of quantitative tools was utilised, including the Attitudes to Deliberate Self-Harm Questionnaire (ADSHQ) and the Self-Harm Antipathy Scale (SHAS).

2.2.1.2 Qualitative papers

Of the qualitative papers, year of publication ranged from 2002 to 2015. The majority of papers considered the attitudes of nurses who regularly worked with patients who self-harm; their practices, treatment approach and their own personal response. One paper considered the cultural response to patients of South-Asian descent who harmed themselves and one considered the effect of training in increasing positivity. Samples exclusively comprised mental health nurses and ranged from five to 18 in size. Four of the qualitative studies were conducted in the UK, one in Australia and the remaining four in various

European countries. Settings ranged from training groups, to individual wards/units, to hospitals. Seven of the nine studies used semi-structured interviews for their data collection, with narrative and unstructured interviews making up the remaining. Various methods of analytical approach were utilised; most commonly thematic analysis, content analysis, grounded theory, or a combination of these.

2.2.2 Study quality

2.2.2.1 Quantitative papers

Regarding the quantitative papers, from a potential score of ten, four of the studies got nine points and two of the studies got eight points. Only two of the studies had five points or less. All of the studies were explicit in their aims and all performed the research independently of routine practice. All but one had a well-described and representative sample, plus a well-described quantitative tool, although not all of the studies discussed the validity/reliability of these. No study included in the quantitative section offered justification for their sample size, despite most having relatively large numbers of participants.

2.2.2.2 Qualitative papers

With regard to the qualitative papers, from a potential score of 13, all but two reached a score between ten and top marks. The studies typically failed to describe the setting of data collection, but all used methods appropriate to their aims and were clear in describing the relationships and themes.

2.2.3 Thematic analysis

Following familiarisation with the literature, broad themes became apparent defined by the nature of the paper. The qualitative papers were all based on an interview design and four broad factors became apparent; nurses' own experiences and feelings, their concerns for the service users, their understanding of their relationships with other colleagues and finally their attitudes and ideas regarding how self-harm is managed and treated. The remaining quantitative papers were based around questionnaires and all looked at one of three factors; comparing mental health staff attitudes with other professionals, comparing mental health staff attitudes following training and

considering what might underlie these nurses' attitudes. A number of sub-themes became apparent with ongoing review and refining of the main categories, which will be explicitly laid out as the review proceeds.

2.3 Literature Review – Attitudes of mental health nurses towards patients who self-harm

2.3.1 Interviews

Of the qualitative papers identified by the literature search, seven used semi-structured interviews as the mode of collection. The identified themes of nurses' own experiences and feelings, their concerns for the service users, their understanding of their relationships with other colleagues, and, finally, their attitudes and ideas regarding how self-harm is managed and treated will be addressed in turn.

2.3.1.1 Nurses' own experiences and attitudes

During the interviews, the nurses' experiences and attitudes towards self-harm could be classified into two areas; the negative aspects of working with the behaviour and the challenges and difficulties inherent, plus how these might be addressed.

Concern regarding manipulation by a patient who self-harms was noted in interviews conducted by Reece (2005), Wilstrand et al (2007) and Thompson, Powis and Carradice (2008). This concern occurred in terms of patients using the behaviour 'against' the staff, and/or 'rewarding the act' by giving attention to the perpetrator following a self-harming event. Feelings of helplessness were noted by all of the nurses interviewed by Reece (2005) and by Tofthagen, Talseth and Fagerström's (2014) participants, who described nursing patients who self-harm as a difficult and provocative task. Mental health nurses described various frustrations including disappointment on the occasions when, despite their openness and availability to service users, an individual had chosen to self-harm rather than access their care (Reece, 2005) Frustration was also detected when patients suffered from relapses in self-harming behaviours, having apparently been making progress towards recovery (O'Donovan and Gijbels, 2006). A final negative aspect noted by the

interviewed nurses was the lack of support (Wilstrand et al, 2007; O'Donovan and Gijbels, 2006), be that from other colleagues or supervisors and managers. These would potentially lead to staff stress and inevitably staff sickness.

The challenges inherent in working with self-harm included both recognition of the need for a caring response and understanding of why the behaviour occurred (Reece, 2005; Tofthagen, Talseth and Fagerström, 2014), but this was tempered by the staff struggling with their emotional responses to the action. Wilstrand et al (2007) further described the affective reactions of the nurses, with participants describing periods in which they might act first and think later in acute situations, attempt to close down their emotional response or utilise humour; perhaps inappropriately given the circumstances.

Other difficulties reported by the interview participants (Wilstrand et al, 2007) include the requirement to confront the behaviour while also acting as a source of hope for the patient, fostering positivity and engaging meaningfully, while also maintaining professional boundaries with a client group who may have mixed feelings towards them in their role as nurses. Thompson, Powis and Carradice (2008) highlight the potential dichotomy when nurses feel less challenged by working with this client group, and query whether it is due to an increase in clinical skills and the resulting increased confidence, or rather that anxiety has reduced because of staff burnout and desensitisation. These authors also suggested that a lack of clear guidelines, the absence of training and inadequate supervision might result in staff responding to patients in ways that are punitive and abusive due to the phenomenon of counter-transference in demanding circumstances, particularly given that community nurses work independently without the support inherent in a ward environment.

A final challenge noted in the nurse interviews with regard to their own experiences was an awareness of a gender divide in which the male nursing staff struggled with the female service users' self-harm. Reece (2005) queried whether this occurred because male nurses felt more protective towards them, or because it infringed on their sense of the perfect female form, rendered imperfect by their actions.

2.3.1.2 Nurses' concerns for the service users

Concern on behalf of the patient was noted in two of the interview studies; Reece (2005) had participants report apprehension regarding the long-term implications of their self-harming actions with regard to their bodies while Wilstrand et al (2007) had nurses' report struggling with fear for the lives of their service users.

2.3.1.3 Relationships with other colleagues

Difficulties reported in working with other nurses in a team that lacked coordination and consistency were noted by O'Donovan and Gijbels (2006). Wilstrand et al (2007) reported concerns regarding other colleagues experiencing an emotional response to the service users that might be difficult to contain or moderate and may result in a loss of control and potential humiliation for the person who self-harms. For those living in remote areas, Slaven & Kisely's (2002) participants described a number of frustrations. The lack of clear communication between the independent services involved with one individual, the negative attitudes of medical staff who dealt with the individual, and failing to be informed of or kept up to date with the follow-up care arrangements put in place for when their input was coming to an end.

Community nurses interviewed by Thompson, Powis and Carradice (2008) discussed the increased pressure they felt in dealing with self-harming patients who had been referred by GPs unsure of how to manage them, or patients discharged from inpatient settings without any appropriate follow-up. Nurses who reported increased positivity towards patients who self-harm following training (Karman et al, 2015b) described supportive teams and open discussion as an important condition for behavioural change.

2.3.1.4 Attitudes and ideas regarding how self-harm is managed and treated

Mental health nurse participants noted that not only was there a clear lack of guidance or policy for managing self-harm behaviours (O'Donovan and Gijbels, 2006; Thompson, Powis and Carradice, 2008), there was also a very obvious leaning towards a model which focused on symptoms and pharmaceutical

management of these, where nurses would have preferred to use a more person-centred approach. A focus on recovery was also described by the nurses in Tofthagen, Talseth and Fagerström (2014) who strongly identified with the Tidal Model (Barker and Buchanan-Barker, 2005).

Given the lack of any specific approach to its handling, Beeley and Sarkar (2013) interviewed staff about the use of an algorithm developed to help guide nursing staff in dealing with an acute self-harm situation on an inpatient ward. The algorithm consists of five levels of behaviour and how these might be responded to by staff (Sarkar and Beeley, 2011). These start at level 1, in which relatively minor acts of self-harm can be attended to by junior staff (under supervision) with nurses helping service users to clean their wounds. Level 3 might include insertion of foreign objects into the body or severe self-burning necessitating medical intervention and management by senior staff, while level 5 where serious risk to self through high lethality acts require a dedicated response team and involvement of the consultant psychiatrist.

Nursing staff found it be an effective tool for managing self-harm and one in which they were confident utilising. The same staff identified the requirement for an approach to managing self-harm which was less punitive in nature (than their traditional methods including restraint and seclusion) and one which reduced the risk of harm to the staff involved when dealing with a self-harming event. The staff also suggested that too much time was being dedicated to managing these events, such as the length of time spent restraining service users following a self-harm event.

Batsleer, Chantler and Burman (2003) considered a cultural aspect of dealing with service users who self-harm. Following interviews with staff, a lack of cultural awareness in dealing with self-harming service users of South Asian descent was identified. Rather than address this awareness through increased awareness training and education, participants felt that these individuals were left in the care of workers selected on the basis of their ethnic background rather than their clinical suitability for the role.

Further factors in treatment and management were stated by Tofthagen et al (2014) who described mental health nurses having an awareness of triggers of self-harm, managing risk, methods of prevention, whether self-harm should or should not be allowed, patients taking responsibility for managing their wounds and the necessity for medication. Of note were the varying attitudes with regard to a harm minimisation approach, with nursing staff questioning the balance between what they could tolerate in delivering harm reduction strategies and what might be beneficial for the patient. The authors concluded by stating that nurses should seek to understand the experiences and actions of their patients, but self-harm can change in nature and character, requiring nurses with advanced skills to manage it.

Nurses interviewed by Karman et al (2015b) described how previously they acted towards patients in decidedly neutral and distant manner, as empathy towards them was felt to be considered as a reward for the self-harming behaviour. However, following relevant self-harm training, the nurses were more inclined to explore and accept the actions because of their own increased understanding; to use less restrictive means of management and develop individually orientated treatment techniques in which self-harm was validated as a coping mechanism.

A final component of nurse attitudes towards the management of self-harm as measured by interviews was noted by Wilstrand et al (2007) who highlight the reported desire and recommendation for smaller units in which self-harming service users are nursed independently of other client groups by more knowledgeable nurses.

2.3.1.5 Summary - Interviews

The themes present throughout the interview studies can be broadly classified into four areas – nurses' perceptions of their attitudes and experiences, their response to patients who self-harm and the colleagues they work with in this area, and management of the behaviour. The interview studies described staff who felt that the prevalence of a symptom-based, pharmaceutical approach was too high, with a greater necessity for a person-centred approach such as Barker

and Buchanan- Barker's (2005) Tidal Model, which posits working with the patient, rather than in a punitive manner against them. Staff identified a lack of any clear guidance or policies when managing self-harming behaviours, but responded well when definitive management algorithms were installed (compared to treatment as usual). Regarding staff frustrations, these were levelled against the behaviour itself; the disappointment of relapse, the feeling of failure when a patient chose to harm themselves rather than utilise the available help, and concerns about the long-term impact that self-harming behaviours would have.

Equally, staff were frustrated by the failures of the systems in place with regard to allowing nurses to do their jobs productively; poor collaboration and communication between different multidisciplinary team members, dealing with the negative attitudes of fellow staff and workers being given caseloads based on shared ethnicity rather than on skill base. The most common frustration voiced by the nursing staff was the perceived lack of support from management, and the systems in place, to help in working with these patients, which may be heightened in the community setting away from the support of the ward. On occasion, when the support was present, nurses reported this to be an important condition in maintaining positivity. Nurse responses to self-harming behaviours tended to polarise around positive or negative extremes. Some of the studies demonstrated that nurses were concerned with the ways in which they were being manipulated by patients who self-harm, their own perceived helplessness, how to protect themselves and, in one paper, the differing responses between male and female staff to the behaviour. Constructively, however, there was also evidence of nurses trying to make sense of their own responses to self-harm, and considering how to engage positively with a patient who behaves in this way.

2.3.2 Questionnaires

The remaining papers identified by the literature search on attitudes of nursing staff towards self-harm were quantitative in nature, all of which utilised a survey design. These studies performed one of three functions; either compare attitudes of mental health nurses to other staff who may encounter patients who

self-harm, compare attitudes of mental health nurses before and after relevant training or use quantitative measures to test theories regarding what it is that underlies nurse attitudes.

2.3.2.1 Differences between staff groups

The first study which measured differences in attitudes between mental health nurses and other professional staff was Patterson, Whittington and Bogg (2007a) who developed the self-harm antipathy scale (SHAS) in light of the theory that a negative attitude towards a patient who harms themselves can cause a risk of greater harm or suicide. By using the scale to identify this antipathy (as the opposite of empathy), risk factors can be addressed and care for this type of patient improved. The scale consists of 30 statements to which participants must provide answers on a 7-point Likert scale. Scores can range from 30 to 210, with high scores indicating high levels of antipathy. Six factors within the scale were identified and labelled. F1: appraisal of one's own competence, associated with a professionals' sense of their own ability. F2: futility of care, reflecting the sense that the behaviour is morally questionable. F3: manipulation and staff perception and the intent underlying the behaviour. F4: understanding and the appreciation that the self-harm can be effective. F5: Rights and to what the self-harming patient is entitled. F6: Functions, as opposite to simple manipulation.

The scale was administered to 153 health professionals, of whom 55% were mental health nurses. The authors report that there was a significant difference in mean scores between adult and mental health nurses, with adult nurses displaying more antipathy at a mean score of 93 whereas mental health nurses had a mean score of 76. Previous study regarding self-harm also was also linked to significantly lessened antipathy scores. There were, however, no significant differences with regard to age of participant, gender, length of nursing experience or frequency of nursing contact with this behaviour. The authors conclude that it is simplistic to consider whether an individual has a negative attitude or not; rather, there are differing attitudinal elements that can vary in differing ways. The potential for socially desirable responses was addressed by the authors through anonymising the procedure although the

need was recognised for the comparison between self-reported attitudes and observable behaviours towards service users. Patterson, Whittington and Bogg (2007a) warn that identification of antipathy is not in itself adequate to improve care and also query how team dynamics might affect patient care; is the positive attitude of one staff member enough to counter the antipathy of another, or vice versa.

In a comparison between the attitudes of professional staff who work with patients with a diagnosis of Borderline Personality Disorder and self-harming activities, Commons Treloar and Lewis (2008a) hypothesised that attitudes would vary with differing demographics and across professions. A total of 140 participants across three Australasian health boards completed the Attitudes to Deliberate Self Harm Questionnaire (ADSHQ) that delivers scores between 33-132; higher scores indicating attitudes that are more positive. Results showed that mental health staff were significantly more positive in their attitude than emergency medicine staff while, overall, females were more positive than males, and those with specific self-harm training were significantly more positive than those who without. No significant results were found regarding length of professional experience, the level of training overall, nor about how frequently the individual encountered this category of patient.

Commons Treloar and Lewis (2008a) query whether the nature of the contact impact on attitudes, with emergency staff contacts likely to be more critically urgent and pressured compared to mental health staff who will nurse individuals over a longer period, in a more sustained manner. They also query whether female staff are simply more able to act in an empathetic and nurturing way with a patient who self-harms compared to male staff. It was found that when dividing participants by profession, although training appeared to bolster the attitudes of nursing staff more than that of allied health professionals (a group composed of psychologists, social workers and occupational therapists), the AHP staff had significantly more positive attitudes than nursing staff overall. The authors suggest that this is due to basic training that fosters a more positive outlook towards personality-disordered patients and the range of psychotherapeutic interventions that might be useful to them, rather than the

pharmacological/medical model approach that nurses are often bound by and which delivers discordant results in this type of service user.

A study of attitudes towards self-harming patients (Gibb, Beautrais and Surgenor, 2010) had 45 mental health nurses from the sole psychiatric hospital in Christchurch, New Zealand complete an 18-statement staff survey. Also measured was the degree of 'burnout' in staff, demographic measures such as length of time in current job and speciality, number of hours worked in the last week and age, gender, etc. The results showed that mental health nurses scored significantly higher on their perceived ability to help self-harming patients compared to other staff (including general medical and emergency department nurses).

Participants identified a range of difficulties in managing these patients, with medical staff reporting that communicating with them was the greatest issue (compared to only 1.7% of psychiatric staff who reported this as a significant concern). Both mental health nurses and emergency staff reported that repetitive self-harm was the most difficult part of their interactions with this client group, while manipulative and/or frustrating patients was ranked second highest. When asked what would improve their interactions, mental health nurses identified that treatment and management plans that were clear would be beneficial. Across the overall sample (not specific to mental health staff) there was a significant association between negative attitudes and burnout scores, specifically in regard to perceived ability to help being linked with lack of personal accomplishment, emotional exhaustion impacting on confidence and staff sense of depersonalisation having a negative effect on optimism and patience. There was no link identified in this study between attitudes towards self-harming patient and gender, age or experience of the respondent, however. The authors concluded that overall, attitudes of staff were more positive than negative, but confidence was low, and staff were able to easily identify what would aid them in this area of mental health, such as clear treatment plans and guidance.

The final study to examine differences between staff groups was Muehlenkamp et al (2013) who conducted a survey study across Belgian hospitals comparing mental health nurses to adult nurses, psychologists and social workers regarding attitudes, empathy and the impact of training in self-harm. Results showed that mental health nurses ranked third in empathy, second in knowledge and how comfortable they were dealing with self-harming behaviours but reported more positive attitudes than both adult nurses and social workers. The reception of training was found to significantly increase levels of empathy across all professions, while male staff displayed a more negative attitude than female staff. The authors cite the importance of increased empathy with this patient group, given that some individuals may not access the available services based on their experiences in which pejorative attitudes from staff were encountered.

2.3.2.2 Differences following training

Further to considering differences in attitudes between staff groups, two of the aforementioned studies (Patterson, Whittington and Bogg, 2007a, and Commons Treloar and Lewis, 2008a) went on to utilise their questionnaire tools to measure changes in mental health nurse attitudes following relevant training. Patterson, Whittington and Bogg (2007b) delivered the Self-Harm Antipathy Scale questionnaire to 69 mental health staff taking part in a course designed to increase understanding of self-harm and consider how it might best be managed. The course consisted of seven sections including causes and function of the behaviour, potential responses/interventions and issues surrounding professional practice and was delivered over 12 separate days.

The SHAS was provided to staff on three separate occasions; day 1 of the course, the last day (15 weeks after day 1) and in a period at least 18 months subsequent to completion of the course, as a measure of the long-term impact of training. The authors found that antipathy decreased throughout the duration of testing with the mean score dropping from 80.09 on the initial test, to 71.72 and 64.8 on the final test. This equated to a 20% reduction in antipathy towards self-harm overall. The authors reported that attitudes towards manipulation, rights and responsibilities and the functions of self-harm (F3, F5 and F6) were

significantly improved between the first two tests, while reports of competence (F1) were significantly improved between the first and third test. Given the significant results, the authors consider that the training had long-term positive effects in improving the attitudes of staff towards those who self-harm and in enabling those staff to feel more confident in their approach and their capacity for helping patients displaying these behaviours.

Commons Treloar and Lewis (2008b) measured the attitudes of mental health nurses both before and after receiving brief training specific to Borderline Personality Disorder (such as definition, aetiology, links to self-harming behaviour and therapeutic approaches). The authors found that the training, which aimed to provide a sound knowledge base explaining the behaviours associated with BPD, had a significant and positive impact on attitudes overall, particularly in the areas of assessment and ability to effectively manage the self-harming behaviours. Further analysis demonstrated that the improvement was only significant in female staff and in those with up to 16 years of experience. Male staff and those with over 16 years' experience did not significantly increase in score. The more frequently the staff encountered BPD patients also had an effect. There was a significant association with improved attitudes for those with weekly or fortnightly contact, but not for monthly contact or less. The authors suggest that greater levels of empathy in female nursing staff, and a less entrenched approach to nursing techniques, might underlie the findings, plus staff with more regular contact having greater opportunities to apply learning and being more familiar with BPD patients overall. Prior training was also considered, which did not impact on before and after scores on the ADSHQ, leading the authors to suggest that regular opportunities for professional development are appropriate for maintaining attitudes that are already positive.

2.3.2.3 What underlies mental health nurse attitudes?

Following dissemination of a vignette describing a female who self-harms, Huband and Tantam (2000) explored the factors affecting professional attitudes and identified two clusters of mental health staff in terms of characteristics and response. One group were considered 'softer' and distinguished by their

perception that the female had less control over her actions, were more inclined to be empathetic towards her, and did not experience difficulties in comprehending her actions. This group tended to have staff who were qualified in counselling and other therapeutic techniques. In comparison, the second cluster of staff were ‘firmer’ in their approach and tended to comprise inpatient staff, with a greater proportion of younger, less experienced staff. The authors accounted for these results in two ways. First, those who engage in specific therapeutic training are not only more likely to have mastered their own personal response to challenging clients, those inclined to instigate this form of professional development may be more predisposed towards empathy and understanding in general. Second, while maturity and length of service may temper attitudes towards those who self-harm, inpatient staff are more likely to be involved in the acute phase of harm and distress, necessitating that they take steps to protect themselves emotionally.

Although a generally positive attitude towards patients (diagnosed with BPD) who self-harmed was found by Hauck, Harrison and Montecalvo (2013), only two main indicators of what underlies nurse attitudes were significant. |The first was a correlation between length of service and perceived efficacy in managing this patient group, the second was a recognition of the need for further study of self-harm. No significant findings were linked to age, gender or educational background. The authors account for this finding by stating that experiential knowledge acquired over a longer career may boost positive reactions.

The final quantitative measure of nurse attitudes was performed by Wheatley and Austin-Payne (2009) who consider the potential contribution of Weiner’s (1980, 1986, in Wheatley and Austin-Payne, 2009) attributional model in staff attitudes towards inpatient service users who self-harm. The model is composed of three components, the first of which suggests that the delivery of helping behaviour by staff is dependent on their perception of how much control the service user has over their behaviour and the extent to which external factors have contributed to it. The second part posits that this process is moderated by the staff member’s emotions, so perceived lack of control with a high contribution from external factors will result in a positive emotional

response of kindness and benevolence whereas perceived high control with few outside factors will result in a negative, offended response. This emotional response might then influence staff's willingness to help. The third factor is the perception of how established the self-harming behaviour is; the more established, the less the staff may be inclined to intervene.

The authors tested their theory by administering three questionnaires (on knowledge, attribution and attitudes) to 76 mental health nurses. Results were found to support the theory, with perceptions of low control and high impact of external factors being significantly associated with higher sympathy and pity by the nurses. Significant correlations were found between perceptions of how established a self-harming behaviour is with how optimistic nurses feel about managing it (a less established behaviour resulting in higher optimism). The authors also found a negative correlation between nurses' self-perception of their own skills with reported irritability towards service users; less knowledge resulting in higher levels of irritation.

Overall, Wheatley and Austin-Payne (2009) found that negativity and worry scores were low in this staff group, although higher negativity was significantly associated with higher worry. Differences between genders were investigated, with female staff reporting lower levels of worry, negativity, and perceived effectiveness than male staff, although this did not reach a significant level. Registered nurses described significantly lower worry and negativity than healthcare assistants. There were no effects of demographic influence on knowledge level, or correlation with length of time in post. The authors conclude by discussing the need for additional training and support geared towards unqualified staff to help address their concern in working with patients who display self-harms, with emphasis particularly on the reasons for and functions of the behaviour.

2.3.2.4 Summary – Questionnaires

The questionnaire study results can be summarised into three broad areas, differences between staff groups who manage and treat patients who self-harm, differences in attitudes following relevant training and models that may account

for the underlying attitudes. Between staff groups, it was found that mental health nurses were more positive in attitude than adult nurses. This was thought to be due to the differing types of interactions – where adult nurses (and specifically emergency medicine nurses) are likely to be dealing with a patient who self-harms in an acute crisis, mental health nurses have the opportunity for a longer-term development of the therapeutic relationship and delivering appropriate interventions. This might also account for the result showing that mental health nurses have a higher perceived ability to care for a self-harming patient than other nurse groups; increased frequency of contact over longer periods. However, Allied Health Professional staff were found to have more positive attitudes than mental health nurses. It is suggested that while mental health training centres on the medical model, AHP staff training is more sympathetic in nature and incorporates a wider range of therapeutic approaches.

Within mental health nurse groups, if differences in attitude did occur within the studies, it tended to result in male staff displaying more negativity than female staff, while in one study, untrained staff felt less confident, more worried and as a result, more negative than trained staff. A younger age (and therefore fewer years of experience) was associated with a firmer approach to nursing self-harm. Commonly discussed in the identified studies was the positive impact of appropriate training in self-harming behaviours on nurse attitudes. Relevant training was associated reduced antipathy, increased empathy and generally result in a more positive attitude, which was evident over a period of time. Where staff characteristics did interact with the effect of training, it was found that female staff responded more positively to training, as did staff with less mental health nursing experience and perhaps a less entrenched attitude towards self-harm. Also of note was that those with training which utilised counselling-style approaches, there existed a more empathetic attitude towards self-harm which may be a result of the continued professional development itself or be a reflection on those who are more likely to pursue this form of approach.

Regarding external factors, the nurses' perception of the degree of control the individual has over the behaviour and how entrenched the behaviour is affects their optimism for the future and propensity for helping. Other factors affecting attitudes of staff were the realisation of the impact that repetitive self-harm and perceived manipulation by service users can have on the nurses who work with them.

2.4 Chapter two – conclusion

The literature review described in chapter two describes the many ways in which nurses can vary in their attitudes towards self-harm and the people who display this behaviour. The quantitative studies demonstrated a gender divide in nursing care, plus differences relating to age and experience. Also noted was the positive response to training on the topic in question. The qualitative studies elaborated on both the positive attitudes towards the patients in the nurses' care, but also the frustrations experienced in terms of perceived ability to deliver that care, concern for their patients' well-being and a sense of having to protect oneself. The articles presented in the literature review offered a broad overview of nursing staff attitudes. One of the aims of this thesis is to add to this body of work by focusing in on nurses' attitudes on both a particular form of self-harm (cutting) and a particular mental health setting (inpatient wards) in an effort to gain a greater understanding of how staff attitudes affect patient care, both positively and negatively.

Chapter 3: Literature Review: Part II - Cutting as a specific form of self-harming behaviour

3.1 Methods

As awareness of self-harm has increased over the last two decades, two main forms of the behaviour are usually cited in both academic literature and by the wider population: self-poisoning, usually via overdose of either prescribed or banned substances and cutting oneself with a sharp implement. While there are a myriad of further methods utilised by people who self-harm, research in this area tends to focus on these two and oft times as methods they are grouped together under the larger umbrella of self-harm (NICE, 2013). While this may be useful in terms of measuring prevalence, the distinctions between two very different modes of action should be recognised. It is the aim of this literature review to consider cutting oneself as a specific form of self-harm through scrutiny of existing research in which cutting, specifically, is addressed solely or as one technique amongst others.

3.1.1 Literature search

The second systematic literature search was completed following the guidelines laid out by the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA: Moher et al, 2009). The aim of the literature review was to identify all qualitative and quantitative empirical studies that considered cutting oneself as a distinct form of self-harm, either singly or in comparison to other methods. Multiple databases were utilised in the literature search, including Web of Science, Proquest Central and PubMed. A variety of search terms were used, with the use of an asterisk (*) to include all possible permutations of the terms. As the literature search was conducted with regard to adult patients, a number of terms pertaining to children and adolescents were excluded from the search. Upon filtering the papers by review of the abstracts to those that were relevant, reference lists were then searched manually to find any further pertinent research.

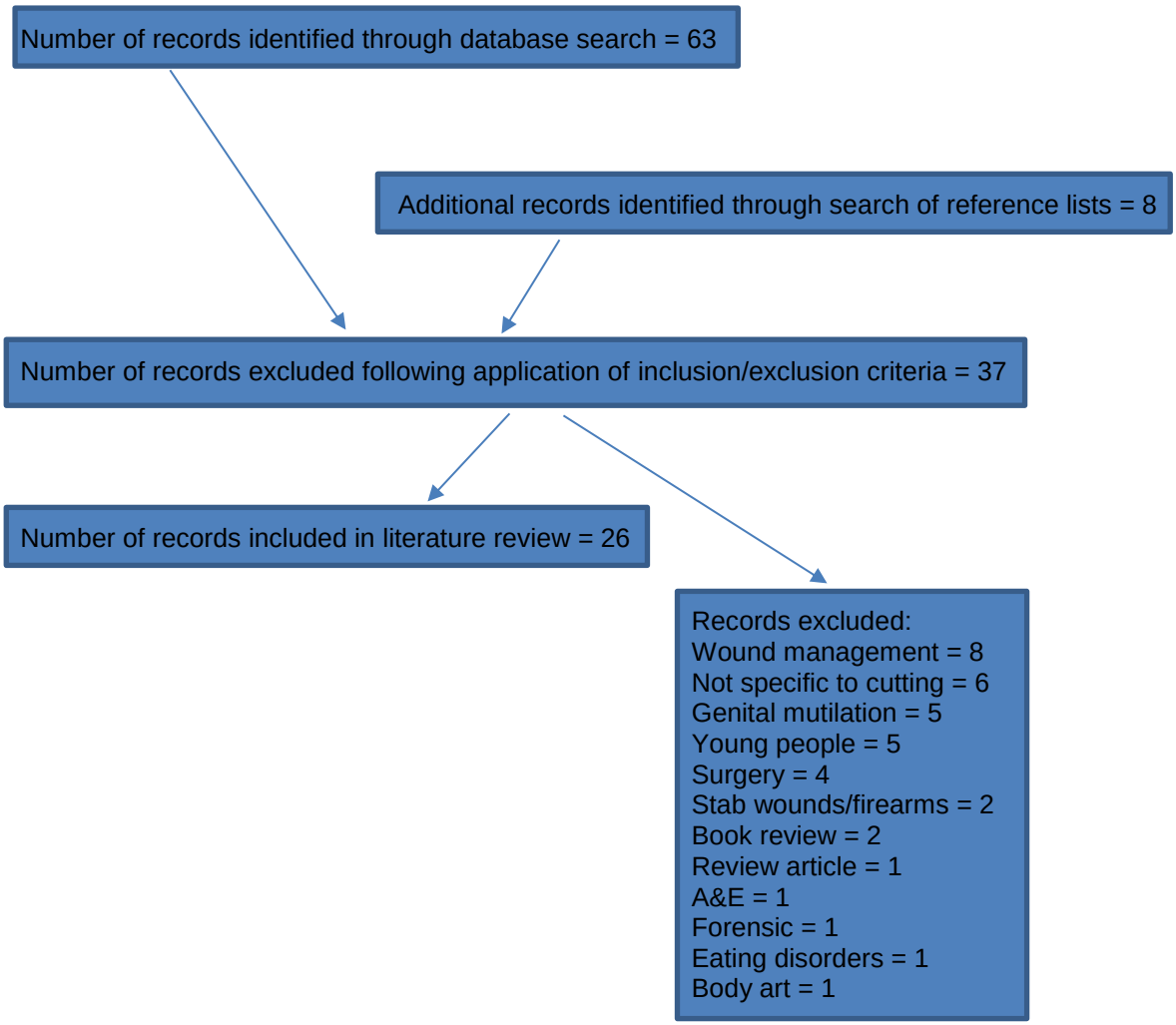
Table 3: search terms utilised and parameters applied for each individual database.

Web of Science	Proquest Central	PubMed
Search terms		
cut* OR lacerat* OR wound* OR incision* (in Title) AND self-harm* OR self harm* (in Topic) NOT child* OR adolesc* OR young* (in Title)	cut* OR lacerat* OR wound* OR incision* (in Title) AND self-harm* OR self harm* (in Abstract) NOT child* OR adolesc* OR young* (in Title)	cut* OR lacerat* OR wound* OR incision* (in Title) AND self-harm* OR self harm* (in Title/Abstract) NOT child* OR adolesc* OR young* (in Title)
Search parameters		
Years: All Articles only, English language Categories: Psychiatry, Psychology, Nursing, Women's/Family Studies, Social Sciences, Health Policy/Public Health	Years: All English language, limit to peer review	None
Results		
29 papers	19 papers	24 papers

Table 4: inclusion and exclusion criteria applied for articles to be relevant to the literature search

Parameters: Cutting	Inclusion criteria	Exclusion criteria
Focus	Studies considering cutting as a specific means of self-harm	Any studies which did not specify cutting as a means of self-harm to some degree
Population	Adults aged 16-65 with direct experience of cutting as a means of self-harm.	Children and older adults. Diagnoses of learning difficulties or psychosis. Body art or culturally guided injurious behaviour. Genital mutilation. Stab wounds.
Setting	Adult inpatient and community mental health services. Voluntary services. Support groups.	Child and adolescent mental health services, older adult mental health services, surgical wards.
Study type	Primary research. Qualitative and quantitative research.	Review or opinion articles. Book reviews. Policy or guidance documents.
Language	English	Non-English literature.

Figure 2. Flow diagram of literature search on the topic of ‘cutting’



The critical appraisal and attributional qualities of each study were considered using the same tools as per part 1 of the literature review (please see section 2.1.1 for full details). A further thematic analysis was carried out (Braun and Clarke, 2006).

3.2 Results

3.2.1 Study characteristics

Following removal of duplicate studies and application of inclusion/exclusion criteria, 26 studies relevant to the literature search remained; 21 of which were quantitative in nature and five of which were qualitative.

3.2.1 Quantitative papers

Of the quantitative papers, year of publication ranged from 1984 to 2016. A variety of study aims were found; five of the papers looked to compare cutting with other forms of self-harm, while five considered the aetiology of cutting. Two papers each considered the epidemiology of cutting behaviour and change over time, the different psychological symptoms associated with the behaviour, the link to suicide, the type/severity of laceration and treatment. One further study looked at the proposed importance of seeing blood during the act. Samples were predominantly comprised current patients, although college and university students were utilised in three of the studies. Sample size ranged from three to 55,258. Seven of the studies took place in the UK, four in the USA and three in Ireland. Further studies took place in Australia, Japan, Switzerland, Malaysia and Canada. Settings varied depending on the nature of the study; most of the nine articles concerning epidemiology took place in A&E departments. A variety of other healthcare settings were utilised; general and psychiatric hospitals, medical centres and outpatient departments. Three of the studies took place in educational facilities. Study designs were predominantly correlational, plus six which were descriptive and two which were quasi-experimental. Studies were well balanced between cross-sectional, longitudinal, prospective or retrospective. Please see appendix VI for full details of the attributes of quantitative papers examining cutting as a specific form of self-harm.

3.2.2 Qualitative papers

In the five qualitative studies, year of publication was more recent, ranging from 2000 to 2015. The predominant aim was to consider the pathways and experiences that led participants to cut, while one study considered the importance of the visual aspect of the behaviour. Sample size ranged from six to eleven, but was not noted in one of the studies. Four of the studies were UK-based while the fifth spanned both the UK and the USA, with samples being recruited from patient groups and online support groups. Three of the studies utilised semi-structured interviews, one used a correspondence method and in one, researchers searched online forums for relevant data. Two of the studies employed narrative forms of analysis, one content discourse analysis, one

grounded theory while one study was unclear about which form of analysis was used. Please see appendix VII for full details of the attributes of qualitative papers examining cutting as a specific form of self-harm.

3.3 Study quality

3.3.1 Quantitative studies

In the 21 quantitative studies, 13 had a potential score of ten while eight had a potential score from nine. The disparity is due to the large numbers of studies that reviewed hospital records for details of epidemiology of those who cut, plus their rates of return to A&E. In these studies, the critical appraisal of the quantitative tool was generally a standardised tool for basic information gathering, thus descriptions of validity and reliability were not applicable. The range throughout was variable; only one study met all quality criteria while six had half marks or poorer. Lack of sample size justification was the main issue, while eight studies failed to recruit a representative sample (sample size either too small or non-randomised), eight studies failed to describe their inclusion/exclusion criteria and eight studies omitted a discussion of generalisability. Please see appendix VIII for full details of the quantitative papers examining cutting as a specific form of self-harm

3.3.2 Qualitative studies

Of the remaining five qualitative papers, from a potential score of 13, one paper scored twelve, two papers scored eleven, one scored seven and one scored eight. All five papers omitted their interview schedule and only two of the papers described the data collection setting. Ethics and consent were not routinely discussed, although all five papers utilised qualitative designs appropriate to their aims and all gave a full discussion of how their themes developed and their results might be generalised. Please see appendix IX for full details of the of the qualitative papers examining cutting as a specific form of self-harm

3.3.3 Thematic analysis

The process of thematic analysis was completed as per the guidelines described by Braun and Clarke (2006), familiarisation, generating codes, searching for themes and then reviewing and identifying them. During the process of familiarisation with the literature, four broad factors became apparent. Most consideration is given to epidemiology and the aetiology of those who cut. The two further themes identified were proposals for how cutting behaviours should be managed and justifications for further research. The latter two were far less common and addressed with less rigor in the quantity and quality of literature afforded to them. A number of sub-themes became apparent with ongoing review and refining of the four main categories, which will be explicitly laid out as the review proceeds.

3.4 Literature review

3.4.1 Epidemiology of cutting behaviour

When considering the epidemiology of any behaviour, it allows the researcher to consider patterns of action or groups of people who are more likely to perform it. In the case of cutting, identifying specific factors and how these cluster together might allow for more relevant risk assessment. Within the broad term of epidemiology, a number of sub-categories are considered within the literature review. These are listed by order of prevalence; gender and age are given most attention, marital status, ethnicity, employment status and the presence of alcohol during a cutting event are also examined, then the presence or absence of suicidal intent, past psychiatric history and site/severity of the wounds themselves, plus risk of repetition.

Table 5: Descriptive results for gender, age and marital status.

Author	Gender		Age							Marital Status	
	Female %	Male %	Mean (SD) years	<15 %	15-24 %	25-34 %	35-44 %	45-54 %	55+ %	Single %	Married %
Andover et al, 2005.*	75.0	25.0	18.85 (1.7)								
Arensman et al, 2013.	40.3	59.7		1.5 (M)	40.4 (M)	29.7 (M)	17.0 (M)	7.1 (M)	4.3 (M)		
				4.4 (F)	42.1 (F)	25.3 (F)	15.4 (F)	8.5 (F)	4.3 (F)		

Briere & Gil, 1998.	96.0	4.0	35 (9)							68.5	31.5
Fujioka et al, 2012.	83.9	16.1	40 (12)								
Glenn & Klonksy, 2010.	82.8	17.2	19.1 (1.9)								
Haines & Williams, 1997.			21.9 (4.9)								
Hawton et al, 2004. (1976-June 1988)	57.2	42.8								75.20	24.80
Hawton et al, 2004. (July 1988–1998)	57.3	42.7		81.6			18.4			86.8	13.2
Hayakawa, 2009.			29 (10.2)								
Klonsky, 2009.*	77.0	33.0	19.4 (2.4)								
Larkin, Di Blasi & Arensman, 2013.	50.0	50.0	34.5 (14.8)								
Larkin et al, 2014.	44.3	55.7		2.7	40.3	26.8	16.9	9.0	4.3		
Lilley et al, 2008.	51.2	48.8	28								
Maloney, Shah & Ferguson, 1987.	29.7	70.3									
Perroud et al, 2012.	95.5	4.5	27.9 (9.2)							90.9	9.1
Sorketti & Zuraida, 2007.	64.0	36.0								40.0	60.0

*Andover et al (2005) and Klonsky (2009) studies were conducted in university student populations, which would have a significant lowering effect on average age of participant.

3.4.1.1 Gender

In terms of the gender of those who cut, results were mixed but tended towards a female prevalence; of the 15 papers which reported gender nine reported a greater tendency ranging from marginal (57% of respondents being female, Hawton et al, 2004) to a very significant effect (96% of respondents being female, Briere and Gil, 1998). Lilley et al (2008) and Larkin, Di Blasi and Arensman (2013) reported an even split between genders. Of the four papers which describe a higher male prevalence of cutting, the spread of years would suggest this is not simply due to self-harm in males becoming a more socially talked about phenomenon (Maloney, Shah and Ferguson, 1987; Arensman et al, 2013 and Larkin et al, 2014). O'Loughlin and Sherwood (2005) considered trends over a 20-year period (1981-2000) and found that when considering all episodes of self-harm meriting a hospital visit, cutting accounted for 11% of the total for males and 7% for the total for females, with no significant changes in trends over the two decades.

Marchetto (2006) accounts for the higher prevalence of female participants inpatient settings in two ways. First, small sample sizes are from psychiatric units in which focus is placed on Borderline Personality Disorder and eating disorders where female numbers tend to be higher. Second, the increased likelihood of female participants volunteering to discuss their cutting behaviours and involve themselves in this form of research.

3.4.1.2 Age

The age of those who cut was averaged in ten of the studies with the range varying from 18.85 (Andover et al, 2005) to 40 (Fujioka et al, 2012). It is worthy of note that in three studies, participants were recruited from college or university classes, thus resulting in a low average age (Andover et al, 2005; Klonsky, 2009 and Glenn and Klonsky, 2010). Standard deviation was high across all studies and peaked at 14.82 years in the paper presented by Larkin, Di Blasi and Arensman (2013). This indicates that while cutting as a self-harming behaviour tends to occur more readily in those under the age of 45, it is not limited to one specific age group within this range.

3.4.1.3 Marital Status

Marital status was considered in five of the papers. Those who cut were found to be far more likely to be single in four of these, ranging from 68.5% (Briere and Gil, 1998) to 90.9% (Perroud et al, 2012). Only Sorketti and Zuraida (2007) describe married individuals as being more likely to cut than those who are single, at a ratio of 2:3. Sorketti and Zuraida's (2007) paper studied self-cutting in Malaysia and reported participants as recording relationship difficulties as significant in causing self-cutting behaviour.

3.4.1.4 Ethnicity

Table 6: Descriptive results for ethnicity and employment status

Author	Ethnicity %					Employment %		
	Caucasian	Asian	Hispanic	Af.Am	Other/ mixed	Working	Not working	Studying
Andover et al, 2005.	65.0				35.0			

Briere & Gil, 1998.	91.0				9.0			
Glenn & Klonsky, 2010.	51.6	18.7	17.2	3.1	9.1			
Hawton et al, 2004. (1976-June1988)						52.0	48.0	
Klonsky, 2009.	92.0		3.0	5.0				
Perroud et al, 2012.						22.7	50.0	27.3

Ethnic background was considered in only four papers, three of which were conducted in universities/colleges. Caucasian was the most common subset, ranging from 51.6% (Glenn & Klonsky, 2010) to 92% (Klonsky, 2009). Glenn & Klonsky (2010) stated that of other ethnicities, Asians accounted for 18.7% of their sample, Hispanics 17.2%, African Americans 3.1% and 9.1% 'other' whereas Klonsky (2009) found the remaining 8% to consist of 5% African Americans and 3% Hispanic.

3.4.1.5 Employment

The working status of those who cut was recorded in two papers. Hawton et al (2004) found an equal split between employed and unemployed, while Perroud et al (2012) describe half as being unemployed, a quarter employed and a quarter in education.

3.4.1.6 Alcohol

Table 7: Descriptive results for whether alcohol was involved in a cutting event (plus how many units were consumed)

Author	Alcohol involved %	No. of units			
		0	<5	5-20	20
Arensman et al, 2013	32.6 (M) 28.7(F)				
Hawton et al, 2004 (1976-June 1988)	16.3				
Hawton et al, 2004 (July 1988-1998)	44.0				
Larkin, Di Blasi & Arensman, 2013	75.0				
Larkin et al, 2014	35.8				
Maloney, Shah & Ferguson, 1987		28.6 (M)	5.7(M)	57.1 (M)	8.6(M)
		68.8(F)	12.5(F)	12.5(F)	6.3 (F)

Five of the papers considered whether alcohol had been consumed prior to a cutting event. A variety of observations were made in this category ranging from alcohol involvement in 16.3% of cases (Hawton et al, 2004) to 75% of cases.

(Larkin, Di Blasi and Arensman, 2013). Maloney, Shah and Ferguson (1987) considered quantity of alcohol consumed. Drinking between 5 and 20 units prior to cutting was common to 57.1% of males whereas in females, the majority (68.8%) had not consumed alcohol prior to cutting.

3.4.1.7 Suicidal ideation/intent

Hawton et al (2004) report that cutters were likely to score significantly lower on a scale of suicidal intent than those who self-poisoned. They considered the differing methods to reflect differing levels of motivation to die and considered the latter to be representative of a more self-destructive mode of thinking and action.

3.4.1.8 Past psychiatric history

Previous and current contact with psychiatric services was examined in a number of papers. Hawton et al (2004) in a comparison between those who cut and those that self-poison found that cutting was significantly more associated with previous psychiatric input and with a greater number of personality disorder diagnoses. Previous diagnosis of mental health problems was found in between 64% and 79% of participants (Klonsky, 2009; Lilley et al, 2008). Meanwhile Fujioka et al (2012) found mood disorders to be most commonly described, followed by schizophrenia, personality disorders and dissociative disorders. This result was replicated in part by Sorketti and Zuraida (2007) who found that the most common diagnosis was depression (in 44% of cases).

When specifically investigating cutting in the absence of previous episodes of trauma, Marchetto (2006) reported a diagnosis of BPD in 44% of cases, while all but one of the remaining 56% reported mental health conditions including mood, bipolar, adjustment and eating disorders, obsessive compulsive disorder and alcohol abuse.

Previous psychiatric admission was reported in between 13% and 25% of participants (Klonsky, 2009; Larkin, Di Blasi and Arensman, 2013) while 48% of Lilley et al's (2008) sample were currently in receipt of some form of mental health services.

3.4.1.9 Location/severity of wounds

Table 8: Location and severity of wounds

Author	Location of wounds %				Severity of wounds %					
	Wrists/ arms	Wrists/arms trunk	Neck/ face	Abdomen	No treatment	Cleaned/ Steristrips	Sutures	Specialist repair	Left before treatment	Unknown
Hawton et al, 2004.	88.1		11.9							
Larkin et al, 2014.					16.3	39.0	20.9	4.4		19.5
Lilley et al, 2008.										
Maloney, Shah & Ferguson, 1987.	88.9	4.9	4.9	1.2	11.8	46.1	27.6	9.2	5.3	

Wrists/arms were the areas of the body most usually wounded during a cutting event, Hawton et al (2004) reporting 88.1% of all wounds in this area. This was closely matched by Maloney, Shah and Ferguson (1987) at 88.9%.

Two papers considered severity of wounds as classified by treatment required; no treatment, steristrips, sutures or specialist repair. Results were similar in each, Maloney, Shah and Ferguson (1987) and Larkin et al (2014) both reporting that steristrips were the most common form of treatment, followed by sutures, then no treatment. Severe wounding requiring specialist repair was required in 9.2% and 4.4% of cases respectively. Fujioka et al (2012) categorised wounds as either ‘deep’ or ‘superficial’ and stated that all of the males in their sample had wounds in the ‘deep’ category. Forty percent of those in the ‘deep’ group had fewer than two prior episodes of cutting while eighty-one percent of those in the ‘superficial’ group had cut themselves repeatedly.

3.4.1.10 Risk of repetition

Table 9: Risk of repetition following a cutting event.

Author	Repetition %		
	None	Within 30 days	Within 1 year
Arensman et al, 2013.	82.4 (M)	6.4 (M)	11.2 (M)
	79.3 (F)	7.0 (F)	13.7 (F)

Larkin et al, 2014.			24.9

A previous history of self-harming behaviour was the most significantly associated factor of cutting reported by Hawton et al (2004) ahead of living alone, being single and associated psychiatric or personality disorder diagnoses. In terms of risk of repetition, Larkin, Di Blasi and Arensman (2013) found that being female, younger in age, homelessness, city dwelling and having been brought to A&E by ambulance were all significantly associated with recurrence within one year. Klonsky (2009) stated that 72% of their participant sample reported injuring themselves by cutting in the year previous.

Hawton et al (2004) also report that of the 997 individuals who presented to A&E with an index episode of cutting, 27.6% re-presented on at least one occasion (in comparison to 20.1% of people who self-poison). This figure is closely replicated by Arensman et al (2013) who state that 6.4% of males and 7.0% of females re-presented to A&E within 30 days while 11.2% of males and 13.7% of females re-presented within one year.

The relationship between severity of wounds and risk of repetition was investigated by Larkin, Di Blasi and Arensman (2013). They found that less extensive injury was significantly associated with a greater risk of repetition within 12 months while those presenting with more severe injuries were less likely overall to re-present, but if they did, an act of high lethality was likely to follow. High lethality was defined as an attempt at hanging or drowning, a cutting event requiring surgical treatment or an overdose of 80 or more tablets. Larkin, Di Blasi and Arensman (2013) go on to report that of the 1802 individuals who presented with an episode of cutting, almost 20% were seen again following an episode of high lethality.

3.4.1.11 Other factors

Additional epidemiological factors were acknowledged in three of the papers reviewed; Hawton et al (2004) found that living alone was a significant factor distinguishing those who cut from those that self-poison. They accounted for this by suggesting that cutting oneself is a private act whereas poisoning oneself is more likely a means of communicating distress to others. Sorketti and Zuraida

(2007) noted psychosocial stressors as being relevant and reported that 70% of their sample had relationship problems, 24% had a medical illness, 16% had health issues and 16% were experiencing problems in their place of work. Meanwhile, Larkin, Di Blasi and Arensman (2013) reported that from 9268 presentations of cutting to an A&E department, 67 had come from a psychiatric hospital. The severities of which were 4.5% not requiring treatment, 29.9% necessitating steristrips, 38.8% requiring stitches and 7.5% requiring plastic surgery (treatment was not reported in 19.4% of these cases).

3.4.1.12 Epidemiology summary

When considering the epidemiology of those who cut, both compared to the general population and to other forms of self-harming behaviour, it becomes apparent that there are no typical characteristics associated with cutting. Different studies present different gender ratios, with four of the abovementioned studies finding higher male ratios of between 55% and 70%, but a 22-year longitudinal study describing females accounting for 57% of the total figure. In inpatient settings, however, female participants were more common, possibly reflecting a higher propensity for research in borderline personality disorder and eating disorders (where a diagnosis is more common in females) or the increased likelihood of women feeling able to talk about and share their experiences of cutting.

Cutting as a self-harming behaviour was not limited to one age range, studies reported a mean range from 18 to 40 but the standard deviation was high and several of the studies utilised college or university students, resulting in a lower average age. Four of the five studies measuring relationship status indicated that those who cut were more likely to be single. However, relationship difficulties were also found to be a significant stressor in cutting behaviour. Caucasians were the most likely ethnicity to report cutting, although again this result may be skewed by the populations measured in the four relevant studies, primarily university or college students. No effect was found of employment status. Alcohol consumption prior to cutting events also varied between studies, from 16% to 75% of cases. A gender divide existed in this sub-category, with males more likely to have consumed alcohol before an episode than females.

Suicidal ideation or intent was not common to a cutting episode. However, those who cut were likely to have previous or ongoing psychiatric input and diagnosis includes personality disorders and mood disorders. Cuts were most common to the wrists/arms with steristrips being the usual form of treatment. Superficial wounding was more likely to be repetitive than deep wounding, however, deep wounds more likely to lead to a high lethality act in the future. Previous SH behaviour biggest indicator of risk of repetition, with recurrence rates varying between 27% and 72%.

3.5 Aetiology of cutting behaviour

Within the broad theme of aetiology, or what causes individuals to perform self-cutting, a number of sub-themes were identified (Braun and Clarke, 2007); response to trauma, affect regulation, manipulation of others, relevant psychological and mental health markers, tension reduction and the importance of bleeding. While information regarding the epidemiology of those who cut might inform the assessment of risk, acknowledgement of the varied and personalised causes of cutting can contribute towards treatment and management through individualised care plans.

3.5.1 Response to trauma

The aetiology of cutting behaviour in terms of response to severe trauma, be it emotional, physical or sexual, was investigated by Harris (2000) in which the author depicts the negative emotions and thoughts linked to the traumatic event(s) as ‘the bad’ and the ensuing behaviour as an attempt to ‘cut the bad out’. The participants described cutting as a method of externalising an internal pain and pressure thereby rendering it more focused and manageable. Communication of distress was mentioned as a theme by Harris (2000) but in terms of communicating to oneself, rather than to the external world. Morris et al (2015) considered two precursors of cutting, the first of which was in relation to being witness to or subject various forms of abuse and unstable/inconsistent familial situations. Respondents to Morris et al’s (2015) study describe powerlessness, neglect and a lack of any members of their family in whom they could place trust.

3.5.2 Affect regulation

In a study in which participants described the desired outcomes of cutting and rated them in order of significance, Klonsky (2009) determined that responses could be divided in terms of primary and secondary intent. Primary reasons were described as the main precursor to cutting, while secondary reasons were described by participants as any additional reasons. The most frequent primary reason, noted by 85% of all respondents, was a reduction in the experience of emotional pressure. Also frequently noted was cutting as an attempt at self-control and the reduce unbearable emotions. The most frequently noted secondary reason for cutting was to express anger at oneself. Klonsky (2009) had respondents consider their state of affect before and after the act of cutting. States of negative affect prevailed prior to the event; frustration, anxiety, sadness and a sense of being overwhelmed. Post-cutting, respondents reported feeling calm and relieved, yet simultaneously annoyed at their actions. The author attempts to rationalise the behaviour by describing four potential states of affect – positive/negative valence and high/low arousal, in varying combinations. Examples given are frustration resulting from negative valence/high arousal, elation as a combination of positive valence/high arousal, relaxation as a reflection of positive valence/low arousal and melancholy produced by negative valence/low arousal. The author found that individuals in whom cutting regularly resulted in a change from negative valence/high arousal to positive valence/low arousal were most likely to indulge in the behaviour repetitively. Klonsky (2009) suggests that the action is negatively reinforcing in that it primarily reduces negative affect via aversion of negative stimuli (rather than increasing positive affect) thus becoming an effective response and liable to be repeated.

Affect regulation was the second theme identified by Morris et al (2015) with regard to the aetiology of cutting behaviour, with respondents describing turning negative emotions inwards, having been subject to the effects of violence and anger released within volatile family situations. Control was also identified as a theme, and using cutting as a means of emotional regulation in a restrained and deliberate manner. Finally, cutting provided respondents with an opportunity to negate emotional anaesthesia with a physical stimulus.

3.5.3 Manipulation of others

Manipulation of others as a cause of cutting behaviour was only mentioned in two papers; Klonsky (2009) notes that some respondents describe their cutting as a means of punishing or manipulating others, but only in a small number and not usually as the primary desired outcome. Harris (2000) also describes cutting as a means of communicating distress but indicated this was a message to oneself, rather than anybody external. Sorketti and Zuraida (2007) broke the idea of 'manipulating others' into more clearly defined factors. During participants' self-report, 28% were trying to communicate their distress and desperation to others, 12% were using cutting as a means of garnering attention, 4% wanted to give someone close to them a shock, 4% were using cutting as a means of getting revenge on someone and 4% were using the activity to test the love of another.

3.5.4 Psychological and mental health markers

Marchetto (2006) attempted to account for cutting behaviours in those without a diagnosis of Borderline Personality Disorder and those who had not been subject to traumatic experiences. The author states that the psychological markers of the level of maternal care in relation to level of overall parental overprotection is a significant risk factor in predicting cutting behaviour. Marchetto (2006) postulates that this finding arises as a result of a parenting style in which an individual is stymied in their attempt to establish a sense of self and lack the opportunity and support to develop the appropriate mechanism for managing, controlling and conveying negative affect. These individuals, therefore, lack the skills to cope with distress and other difficult emotions in an autonomous fashion with coping mechanisms becoming dysfunctional and externalised.

Psychological markers were also investigated by Larkin, Di Blasi and Arensman (2013), within those who cut (distinguished by the frequency of repetition) and between methods of self-harming behaviour. Hopelessness was found to be significantly higher in those who cut compared to those who overdose, while non-reaction to subjective experience was found to be significantly lower. The authors suggest that this finding reflects a reduced threshold for managing difficult emotions in individuals who cut necessitating a prompt response (as opposed to

the delayed effects following an overdose). Risk of repetition in cutting was associated with an increased vulnerability to depressive symptoms and acting on impulse, plus lower problem-solving abilities; the authors suggesting that repetitive cutting may be borne out of increased risk factors associated with reduced protective factors.

Greater levels of anxiety were reported in both interview and self-report in those who cut by Andover et al (2005) compared to non-harming controls, and a greater level of anxiety in interviews when compared to those who partake in other methods of self-harm. Regarding depressive symptoms, however, those who cut were similar to those who use other methods – both of which were describing more depressive symptoms than non-harming controls. Andover et al (2005) uses this finding to emphasise the importance of distinguishing between methods of self-harm.

3.5.5 Tension reduction

The tensionreduction model of cutting behaviour is described by Haines et al (1995) with the reduction in arousal serving as a mechanism of positive reinforcement of cutting as a coping strategy. The authors found support for this model with the following experiment - three imagery scripts were offered to a group of individuals who were repetitive cutters and a control group. The scripts included a neutral scene, an accidental injury scene and a self-injurious scene. There were no differences between groups in terms of psychological or psychophysiological markers with regard to the neutral scene. When considering the accidental injury, the group of those who cut were significantly less affected. The authors surmise that this is due to being acclimatised to bodily damage. The self-injurious scene was broken down into four component parts – establishing the scene, resolution, activity and outcome. In the group who cut, arousal was noted to rise steadily during the first two stages, decrease as the behaviour took place and remain low throughout the outcome phase. It was noted that, while psychophysiological markers demonstrated a reduction in arousal, participants noted no improvement in psychological markers. They continued to report negative feelings suggesting that it is the effect on the psychophysiological state

that augments and preserves the behaviour, rather than the effect of cutting on the psychological state.

While tension reduction was described by 56% of Sorketti and Zuraida's (2007) participants, reduction in terms of managing suicidal ideation or intent was investigated by Perroud et al (2012), who found differences in a number of factors when an intentional fatality was factored into cutting behaviours. The majority of participants responded that their cutting act was not suicidal, but was motivated by its ability to reduce subjective tension and numbness. Among the 18% of participants who reported engagement in cutting behaviour with underlying suicidal intent wounds were more extensive, tension reduction was not a notable outcome. The authors surmise that cutting behaviour may be used as a mechanism to actively avoid suicidal ideation in most cases by relieving unbearable tension, but warn that there is no clear-cut distinction between suicidality- and non-lethally motivated cutting

Tension reduction was further investigated as a concept by Huband and Tantam (2004) who identified two distinct pathways that may lead to self-wounding following interviews with females who cut themselves. The first they described as the spring pathway, in which those who self-harm experience an alarming but ill-defined state that worsens over time before eventually becoming unbearable (i.e. wound up like a spring). Self-harm provides relief from this state, although it may only be brief. This process can occur over a number of days and the participants interviewed identified that social relationships can have a significant, negative effect. The second route to self-wounding was the switch pathway, in which the urge to cut was sudden and without any identifiable triggers. Huband and Tantam (2004) discerned that those who generally identified with the switch pathway tended to have a greater number of self-harm episodes in total than those who were more familiar with the spring pathway.

Using Huband and Tantam's (2004) 'spring' or 'switch' pathways of self-harm to inform their narrative study, Donskoy and Stevens (2013) interviewed 11 participants who cut and found all but one identified with the 'spring' pathway (in their first episode of self-wounding), which describes self-harming as a form of tension reduction. The authors further delineated the first episode of reducing

tension into three components; a surprise or ‘a-ha’ moment, a period of learning whereby the person conceptualises cutting as a means of relief, and, finally, the gaining or regaining of control.

3.5.6 Problem-solving/coping skills

When considering the theory that cutting might arise due to poor problem-solving abilities, Haines and Williams (1997) describe a result that fails to support the idea. While those who engage in cutting behaviours demonstrated some deficiencies in specific aspects of problem-solving (namely difficulties in relational issues), overall those who cut were no less able to reason solutions than those who do not self-harm and therefore the cutting behaviours are not adopted in this capacity. The authors suggest that while those who cut display poor coping skills and strategies overall, this was not to the extent that self-harm was the only available option to them. As an alternative means of explaining cutting behaviours, the authors refer back to their own earlier paper on psychophysiological arousal (Haines et al, 1995) as a potential reason.

3.5.7 The importance of blood/the visual aspect

Given that the act of cutting has a very visual component, it is surprising that this is not more fully addressed within the existing literature. Only two papers were found which covered this aspect of the behaviour. Two groups were investigated by Glenn and Klonsky (2010); those who found the visual aspect of seeing blood during a cutting event important and those who did not. While there were no significant demographic differences, those who rated the sight of blood as important were more likely to engage in repetitive cutting behaviours (with an average of 30 lifetime events versus four events for the not-important group). The outcomes most reported by the ‘important’ group were the relief of tension (reported in 84.8%), feeling of calm (72.7%) and reduces dissociation (51.5%). Interpersonal communication did not differ between the groups. Symptoms of borderline personality disorder and bulimia were noted more frequently within the ‘important’ group. The authors discuss the possibility that those who find the sight of blood important are sensitive to what they term the parasympathetic rebound – a compensatory mechanism that acts to reduce physiological arousal following a

strong sympathetic response. The authors posit that the act of cutting oneself and drawing blood induces a sympathetic response, after which the parasympathetic rebound overcompensates for same, resulting in feelings of relaxation and calm.

Sternudd (2014) found that the role of seeing blood during a cutting event was important to the participants and that in 90% of cases the comments made regarding the visual aspect of the event were positive; the aesthetic nature of the cuts, the way in which calmed and comforted the respondents to see it, the exhilaration and fascination of bleeding. With regard to the emotional consequence of a cutting event, respondents reported the need to make something which was internal external; pain, feelings, sense of self. Further outcomes included the sense of control that was garnered by a cutting behaviour – being able to regulate the frequency and severity of the cuts when other aspects of life were uncontrollable. Finally, the respondents described their cutting as a method of intrapersonal communication – between themselves in the present and the future.

3.5.8 Aetiology summary

As with epidemiology, it is not simply the case that one aetiological characteristic defines all cutting episodes. Within one individual, the causes of the behaviour might change over time. However, a number of themes have been identified. These include cutting as a response to trauma, in which the thoughts and emotions linked to the trauma; the internal pain, pressure and powerlessness can be externalised and through a cutting event, managed. The theme of affect regulation develops from the positive affective state that occurs following a cutting event – calm, relief, the transition from high arousal to low or the use of a physical action to negate an emotional numbness.

Tying in to affect regulation is the theme of tension reduction, which considers cutting behaviours to be reinforcing on a psychophysiological rather than psychological level. This is further explained by the importance of seeing blood as part of the cutting event – the visual stimuli induces a sympathetic response, followed immediately by the parasympathetic rebound resulting in a sense of

calm and relief. Also suggested is that in situations where an individual has not been allowed to display emotions, perhaps due to familial volatility, cutting is an opportunity to release emotions in a restrained and deliberate manner. Psychological markers associated with cutting include high hopelessness, high impulsivity and vulnerability to symptoms of anxiety and depression, while developmental precursors may include low maternal care against a backdrop of high parental overprotection, an environment in which the individual is not able to develop appropriate methods for managing or conveying negative emotion. Those who cut rarely report the manipulation of others as a primary desired outcome and in the cases of the desire to communicate distress. It appears that this communication is aimed as much at the self, or the future/past as to any external agent.

3.6 Treatment/Management of cutting behaviour

Understanding the how and why of cutting leads organically to the consideration of treating and managing the phenomenon; to aid the recovery of the individual, assist in the role played by that person's family or friends and to relieve the burden that the action places upon the health service. A number of sub-themes were identified within the literature review and will be further discussed below; therapeutic interventions, considering the function of cutting as opposed to other methods of self-harm, action versus affect as basis for treatment, barriers to treatment, recognising one's own prejudices as a practitioner working in this area and finally considering time frames.

3.6.1 Therapeutic Interventions

The most common theme, noted in five of the papers relates to the methods of therapeutic intervention considered most appropriate for those who display cutting behaviour. The need for an intensive psychosocial treatment to be delivered soon after an assessment has taken place was described by Arensman et al (2013), although they do not detail which interventions may be best suited for this type of patient. Andover et al (2005) considered that Dialectical Behavioural Therapy might prove effective as a means of treating cutting behaviour regardless of formal diagnosis (given the tendencies towards BPD

characteristics in patients who cut and the fact DBT was developed with BPD in mind). Meanwhile, Marchetto (2006) advises that in the treatment of cutting behaviours, professional staff be alert to the notion that it can occur independently of BPD, with a tendency towards parental overprotection and maternal neglect as significant risk factors.

Hayakawa (2009) developed an approach to the treatment of cutting behaviour which also recognised the time constraints placed on the Japanese health care system; brief (15 minute) interventions every second week in which psychotherapeutic sessions relating to assertiveness were delivered. 69% (9 of 13) participants displayed a significant reduction in cutting over the course of one to four years, plus an increase in assertiveness overall, as self-reported via a questionnaire. Assertiveness training was chosen as a precursor to self-affirmation and the participants being able to forgive and prioritise themselves. A further therapeutic goal was for the participants to be able to communicate their needs to others in a calm but meaningful way, rather than using cutting as a means to display their emotions.

Interventions based around problem-solving and those that emphasise the support available from others were considered by Larkin, Di Blasi and Arensman (2013) to potentially be more effective than a behaviourist method, as with the latter the patient may feel they are troublesome and tiresome to the therapist, potentially resulting in further self-harm.

3.6.2 Consider cutting as opposed to other forms of self-harm

The recognition that different forms of self-harm merit different approaches to treatment was noted in five of the papers. Hawton et al (2004) in their study found considerable differences between those who cut and those who self-poison in terms of epidemiology and suggest models of treatment should reflect this diversity. Meanwhile, Klonsky (2009) implores mental health practitioners to consider the function of cutting behaviour on an individual basis and plan care accordingly. This is echoed by Perroud et al (2012) who consider that treatment be directed by the intention underlying the act. Furthermore, Donskoy and Stevens (2013) stated that although most of the reported cutting was driven by a

need for tension reduction, the causes of the tension varied widely across their participants. Examples provided included a feeling of not being able to control negative emotions, managing the emotional aftermath following sexual assault and grief following the death of a close family member.

Larkin, Di Blasi and Arensman (2013) also note that due to epidemiological and etiological differences between those who carry out differing forms of self-harm should result in differing treatments to suit. Based on their study, Larkin, Di Blasi and Arensman (2013) conclude that cutting behaviour should be addressed with a problem-solving treatment that also emphasises the supports available externally, rather than more formal behaviourist techniques that may alienate the person.

3.6.3 Action versus affect

Rosen and Thomas (1984) and Morris et al (2015) offer opposing approaches for the treatment of cutting behaviour. Rosen and Thomas (1984) developed a method for managing cutting behaviour based on the premise that there are numerous stimuli and precursors for a cutting event and therefore it would be sensible to address the behaviour itself rather than that which precedes it. The authors conceptualise cutting behaviour as a learned behaviour, driven by the desire to avoid stressors or requirement for stimulation. This form of avoidance behaviour is considered by the authors to be difficult to extinguish and prone to increase when the individual is punished for it. As such, the intention was to replace the behaviour with something that fulfilled the requirement for pain but did not cause any damage to the body. When individuals felt the urge to cut, they were instructed instead to take part in vigorous, repetitive physical exercises such as push-ups and leg-lifts until muscle fatigue left them unable to continue (usually beyond the point at which the exercise had become painful). On the understanding that there would be occasions where these actions were inappropriate, the participants were also provided with a firm rubber ball to squeeze, again until such point as they were no longer to complete the action and beyond the pain barrier. The authors noted that of the three case studies, all of whom had a lengthy and substantial history of cutting behaviour, the same

was eradicated in all three and continued to be unnecessary at follow-up of up to 30 months later.

The exercise component of the activity was not continued for any length of time; eventually use of the ball was adequate to stave off self-harming. The authors queried whether the initial bout of physical exercise was necessary at all or whether the ball alone would have been sufficient.

However, Morris et al (2015) consider that the aim of treatment should be focused on aiding patients to express their emotions in constructive rather than destructive ways. They suggest that treatment should focus on the negative affect of the individual, rather than the act of cutting itself.

3.6.4 Barriers to treatment

Given the complexity of cutting as a phenomenon, it is understandable that treatment will not be straightforward; two papers identified in the review described potential barriers, one in the short-term treatment and one in the longer-term management. Harris (2000) considered the friction apparent between patients presenting to A&E following a cutting event and the nursing staff treating them. Harris (2000) described the incompatibility in subjective views as being based on the patients using the self-harming behaviour as an antithesis to suicide and a means of gaining relief and control, whereas the professional staff found this idea to be irrational and considered the behaviour to be evidence of a lack of control. Both parties consider their viewpoint to be logical and appear unable to consider the situation from the others' side. Harris (2000) participants described humiliation, infantilisation and shaming by A&E staff, whose motivations appeared to be driven by their opinion that the self-harming patient is time wasting, bed blocking and not considering the needs of other patients they consider genuinely ill. The participants also described feeling threatened and being abused by the staff, when they refused medical treatment. This would appear to be an extension of the motives described above, but made the participants unwilling to consider any further treatment via A&E.

Disparity between what nurses and patients feel is most appropriate and effective in the management of cutting was noted by Huband and Tantam (2004). Patients

identified that having a meaningful relationship with one keyworker was the most useful strategy available, followed by encouragement to discuss their emotional state and having access to an emergency telephone number. Staff meanwhile considered that regular discussions between all the involved staff was the most effective strategy, followed by encouraging patients to discuss their feelings and then utilising relaxation techniques. While the staff and patient have in common their second strategy of having patients and staff talk to each other, relaxation techniques (identified as third most useful by staff) were considered to be amongst the least useful by patients.

In the longer-term management of cutting, Marchetto (2006) warns that the apparent risk factors of historical parental over-protection and maternal neglect associated with the behaviour can present as a notable barrier to therapeutic interventions, particularly in approaches that are analytical in nature; a supportive manner is posited as an alternative.

Harm minimisation as a potential treatment for cutting is only very briefly touched upon by one paper. Morris et al (2015) warn against making people refrain from cutting in the short term as it may lead to increased frequency and severity of cutting events.

3.6.6 Practitioners' misconceptions

Klonsky (2009) implores mental health practitioners to be mindful of the professional pitfall of assuming the behaviour is motivated by attention-seeking or relational communications. This was reiterated by Perroud et al (2012) who emphasise that professionals consider cutting behaviours as a means of dealing with stress rather than an attempt at manipulation of others. Huband and Tantam (2004) found that the perception of how effective a treatment is could be tempered by the attitude of the staff delivering it. Strategies were rated by patients as being more useful if delivered by a person who displayed empathy, acted competently and promoted autonomy but were rated as less useful when staff appeared either unconcerned or overly protective.

3.6.7 Timeframes

Within the literature review, points were raised by various papers regarding the treatment and management of cutting in terms of timeframes, again both in the acute phase of cutting and in the longer term. These included Haines et al (1995) who suggest that there are different time frames in regard to the psychological and psychophysiological responses to cutting behaviour and proposed that this be taken into account when considering how and when to offer interventions. Meanwhile, Perroud et al (2012) state that thought be given to helping patients organise their evenings (as this is when self-harm may be most likely to occur). The need a speedy response from health services is described by Arensman et al (2013), initially in the form of a 24-hour crisis service available for rapid assessment and longer term, for an intensive psychosocial treatment to be delivered soon after the assessment has taken place.

3.6.8 Summary of treatment/management of cutting behaviour

The noted papers recognise that given the various aetiologies of cutting behaviours and the differing epidemiology of those who perform the act, treatment needs to be person-centred and individualistic. However, the studies differ in that some suggest managing the behaviour itself, such as by replacing the act with something that fulfils the requirement for pain without causing long-term damage, while others suggest the focus needs to be on aiding people to manage their emotions constructively rather than destructively. Whether the behaviour arises from a background of psychological distress or physiological need may also affect the potential interventions. Suggestions for two specific therapeutic interventions that may be beneficial for those who cut are Dialectical Behavioural Therapy, given the two-way relationship between Borderline Personality Disorder traits and self-harming behaviours and assertiveness training. The second can act as a precursor to self-affirmation in which the people can begin to forgive and prioritise themselves, while communicating their needs to others in a calm and meaningful way.

Barriers to treatment may include the misconception that cutting is an attention-seeking behaviour or the friction which comes from staff feeling that cutting is an

irrational act, whereas patients are using it as a means of gaining control and relief. A disparity exists between what patients and psychiatric staff consider useful and effective strategies. Other factors included in the research includes consideration of the usual time of cutting behaviours, for example, if this is in the evening most likely to occur in the evening then meaningful interventions can pre-empt the behaviour. Also recognised is that making people refrain from cutting in the short term might lead to increased frequency and severity, if alternative coping mechanisms are not found.

3.7 Why does cutting as a form of self-harm behaviour require further study?

Further to the implicit justifications for the study of cutting as a self-harming behaviour mentioned at the beginning of the literature review, the papers identified within the literature search also offer explicit reasons as to why this area merits further investigation. Various explanations are postulated regarding the aetiology of why people harm themselves by cutting by Haines et al (1995) but the authors note that no one specific theory can account for the behaviour in all cases and propose instead that a number of factors, both internal and external will contribute to the overall effect. Further investigation is necessary to begin to unpick the ways in which these factors interact.

Andover et al (2005) describe the limitations inherent in past studies of cutting behaviour. These include the focus on clinical populations and the difficulties in making results generalizable to a wider population, the dependence on self-report from participants rather than subjectively verifiable accounts, the underlying preoccupation with the presence/absence of self-harming behaviours, rather than the frequency of same and the presence of Borderline Personality Disorder as a predicated backdrop to cutting behaviours. Similarly, Marchetto (2006) describes a distracting preoccupation with cutting behaviours that negatively affect the understanding of how best to care for those who do. The author states that cutting is too quickly attributed to disordered personalities and that once this label has been designated, it will stand in the way of a further investigation into reasons for the behaviour and negate a therapeutic response from those the person who cuts is relying upon for help and support. More

recently, however, non-suicidal self-injury (NSSI) has emerged from the shadow of BPD and is recognised as a clinically independent category of diagnosis within the most recent Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (Larkin et al, 2014).

Although the behaviour is by no means linked to suicidal ideation or intent within the whole population, there are some for whom the act is indicative of risk of it. Bergen et al (2012) describe the relationship between cutting presentations to A&E departments in England and the risk of future suicide. 23% of deaths were identified as having a cutting event as the most recent visit to A&E and an act of cutting in itself was more significantly linked to risk of later suicide than an act of self-poisoning. Furthermore, Arensman et al (2013) report that those presenting to A&E following a cutting event were significantly more likely to re-present than those who had self-poisoned, in both the initial 30-day time frame and the longer-term frame of up to one year. Carroll et al (2016) also investigated the link between cutting and risk of suicide, finding a significant link to the site of the wounding; in cases where people who self-harmed had presented to A&E with cutting to their arms, no association existed with later completed suicide. However, cutting to areas other than the arm only accounted for 0.04% of the hospital presentations overall, but was linked to 15% of the linked, completed suicides.

Despite receiving support and treatment in mental health wards, Larkin et al (2014) note the presence of mental health inpatients arriving for treatment of cutting aftermath in A&E departments, with at least 76.2% requiring some form of treatment, be it steristrips, sutures or more intensive repairs.

3.7.1 Further study of cutting – summary

No single theory accounts for all cutting characteristics or behaviour and various internal/external factors will contribute. As such, this range of factors needs to be identified so that the appropriate interventions can be designed and delivered. Limitations of past studies on cutting include a focus on inpatient settings and difficulties arise in making these findings generalizable to the wider population. Also prevalent is a preoccupation with either the absence or presence of

behaviour rather than frequency and severity of the behaviour, which varies greatly between and within individuals. Some studies noted that the diagnosis of personality disorder in one who cuts might preclude a further investigation into causes of behaviour and although the behaviour is by no means linked to suicidal ideation or intent within the whole population, there are some for whom the act is indicative of risk of same, hence meriting further study. In addition, the act of cutting and the risk of repetition has implications for management of both accident and emergency departments and mental health services.

3.8 Conclusion

Cutting as a specific form of self-harming behaviour has considerable coverage in academic literature. This review has demonstrated that there are no typical characteristics in terms of epidemiological factors such as gender or age and no definitive results linking self-cutting to the use of alcohol. While cutting is not commonly linked to suicidal ideation or intent, a person engaging in this behaviour is likely to be known to mental health services. Theories on what causes cutting were varied, alongside the recognition that the function itself may change within one person across a period of time, thus making a population-wide explanation of the behaviour difficult. In response to the variety of causes, there exist a variety of treatment and management solutions. While having an assortment of options increases the likelihood of finding the means to help any given individual, thought must also be given to the barriers to treatment, which includes poor staff attitude/understanding and disparity in opinions regarding what is helpful for treating or minimising the behaviour.

Following this literature review on self-cutting (and the preceding review examining the attitudes of mental health staff), the purpose for the remainder of the thesis is to develop a tool which will aid our understanding of how attitudes translate into action. The questionnaire will distinguish between specific aspects of attitude towards the management of cutting and highlight any disparities between and within groups. This will add to the wider body of literature and help inform future treatment strategies.

Chapter 4: Development of the AMScQ

4.1 Questionnaire Development - Methods

Various questionnaires and tools exist which aim to measure attitudes towards and management of self-harming behaviour, including the Attitudes to Deliberate Self-Harm Questionnaire (ADSHQ: McAllister et al, 2002), the Self-Harm Antipathy Scale (SHAS: Patterson, Whittington and Bogg, 2007a) and the Self Harm Inventory (Sansone and Sansone, 2010). Although many of the existing scales consider the self-harming behaviour of cutting as part of the larger range of actions, none focuses on it as a distinct practice. Equally, questionnaires are available which consider how mental health patients may be managed on an inpatient ward, such as the Attitudes to Containment Measures Questionnaire (ACMQ: Bowers et al, 2004) but again, this refers to the very broad category of conflict behaviours, rather than self-harm in general or one specific form of harm. Tools such as the ACMQ also do not make any allowances for harm minimisation or reduction techniques as potential methods of treatment within acute mental health settings.

With these factors in mind, the author developed a questionnaire that aimed to specifically measure the attitudes of both nursing staff and mental health patients, towards a wide range of methods that might be used in the management of a patient who self-cuts on a psychiatric ward. These responses might be relevant when a patient states they wish to or have thought about cutting, when the patient has physically harmed him or herself and longer-term treatment strategies. This was titled the Attitudes towards Management of Self-cutting Questionnaire (AMScQ).

4.1.1 Construction of item pool

Methods of management identified for inclusion within the questionnaire were drawn from a variety of sources, including Bowers et al (2004) ACMQ, the National Self-Harm Network (2000) and consultations with charge nurses of mental health inpatient wards to identify which approaches are used within the local NHS region. It was noted at this point that there were no specific policies or

guidelines in place advising on the management of self-harm and that self-cutting events tended to be handled on a case-by-case basis. Close examination and thematic analysis (Braun and Clarke, 2006) of management methods was performed, followed by discussion within the supervisory team. This resulted in classifications suggesting two broad groups of interventions; a 'reactive' category in which the management techniques would be done to the patients (sometimes against their wishes), or more 'permissive/proactive' methods, in which the techniques would be done with the patients. Please see table below for a full list of potential management techniques. Eighteen management techniques were included in total.

Table 10: Items included in the AMScQ

Proactive techniques	Reactive techniques
Indirect alternatives to cutting – distraction techniques, relaxation techniques, engaging in unrelated activities	Administration of PRN medication – medication given with consent
Direct alternatives to cutting – e.g. pinging elastic bands, using ice cubes, drawing on self with red pen	Observation – increased beyond general level to intermittent (patient is checked on at predetermined intermittent times by staff e.g. every 10 minutes)
Development of person-centred, individualised care plans and risk assessments to address cutting	Observation – increased beyond general level to close (patient remains within sight)
Therapeutic interventions aimed at reduction of self-harming behaviours – e.g. problem-solving approaches, considering why a person cuts	Observation – increased beyond general level to special (patient remains within touching distance)
Provision of information regarding short- and long-term effects of cutting – e.g. scarring, response of others, etc.	Seclusion/Isolation – patient being removed to their room or specified area of the ward
Provision of information regarding anatomy/physiology – for example how to avoid nerves, tendons and arteries when cutting	Inappropriate medical treatment – e.g. stitching wounds without anaesthetic
Advice on wound care, cleaning and signs of infections	Refusal of medical treatment by professional services
Nursing staff being made aware that a person is cutting	Physical restraint – patient having movement prevented by nursing staff using specific holding techniques

Provision of a first aid kit – containing dressings, etc. for immediate wound care	IM medication – injection of intramuscular medication (e.g. sedatives) given without consent
Provision of sterile cutting implements – razors or scalpels to lower risk of infection following a cutting event	
Nurse being present during cutting event to provide support and ensure safety	

Responses to the questionnaire are gathered in two parts as per Bowers et al's (2004) ACMQ – each respondent is asked to rate the method in terms of its effectiveness and acceptability in stopping or preventing a cutting event, whether it respects the patients' dignity and is safe for both the patient and staff. A 5-point Likert scale is offered to complete these responses, ranging from 'strongly agree' to 'strongly disagree', with a 'neutral' midpoint. A 5-point scale was utilised as findings have been found to be comparable regardless of whether the scale incorporates 5 or more options (Dawes, 2008) while a small number of potential responses aids ease of use (Azzara, 2010). For the second part, respondents are asked to provide a yes/no answer to the question of whether they have been subjected to the method (patients) or have utilised it (nurses). The order of the items was randomised. No reverse scoring was employed in this process as all items were positively worded. Consideration was given to the layout and appearance of the questionnaire, as per the recommendations of McColl et al (2001), which is available in two formats – a paper copy and an online version utilising Survey Monkey; a popular survey website. Please see appendices XII and XIII for staff and service user versions of the AMScQ.

4.1.2 Pre-testing

The questionnaire was presented in draft format to two groups: a set of registered nurses based in the University of Abertay and one of the local Community Mental Health Teams (CMHT) and a group of previous mental health service users (identified through a local voluntary organisation) to gather feedback on the wording, clarity, ease of completion and relevance/appropriateness. Responses to this consideration of face validity led to minor changes in the terminology and expansion of the descriptions

that accompanied each method. The questionnaire was then administered to a group of twenty mental health nurses (again, within two local CMHTs) to complete twice over a period of two weeks (test-retest), as a means of assessing the reliability and stability.

4.2 Participants and setting

Two participant groups were involved in the main body of the project. The staff group comprised mental health nursing staff; registered mental nurses, nursing and healthcare assistants and student mental health nurses. The newly developed AMScQ was distributed in a variety of settings throughout the UK; hard copies and by email to mental health nursing staff in NHS Tayside and NHS Fife and via web-link to members of the Mental Health Nurses Academic UK (MHNAUK). A total of 175 mental health nursing staff took part, the inclusion criteria being that they had experience of working in a mental health inpatient ward in which self-harm (by cutting) had taken place. Of the nursing staff, 38 (21.7%) completed a paper copy, of which 100% were completed. The remaining 137 (78.3%) completed an online version of the questionnaire; the response rate for this was 65%, with 35% of online respondents accessing the questionnaire but not completing it.

Table 11: Staff demographics; gender, age, position, length of service

Gender							
Male			Female				
40 (22.9%)			135 (77.1%)				
Age (years)							
19 or less	20-29	30-39	40-49	50-59	60-69		
1 (0.6%)	37 (21.1%)	35 (20.0%)	55 (31.4%)	43 (24.6%)	4 (2.3%)		
Position							
Student Nurse		HCA/NA		RMN			
29 (16.6%)		7 (4%)		139 (79.4%)			
Length of Service (years)							
0-5	6-10	11-15	16-20	21-25	26-30	31-35	36+
57 (32.6%)	12 (6.9%)	19 (10.9%)	21 (12.0%)	26 (14.9%)	23 (13.1%)	13 (7.4%)	4 (2.3%)

The second participant group comprised 40 past service users. This group were recruited via online support forums, namely the National Self-Harm Network and Recover Your Life, in whose forums a link was supplied to an online version of the questionnaire. A monthly e-bulletin produced by the organisation Self-Injury Support also linked to the online version. Qualifying inclusion criteria for the past service users was having personal experience of self-cutting while a patient within a mental health ward. All of the service users filled in the questionnaires online, with a response rate of 42% of respondents completing the AMScQ having accessed the link.

Therefore, the total number of participants was 344 over the two groups, with 215 completing the full AMScQ; an overall response rate of 62.5%.

Table 12: Service user demographics: gender, age, length of admission

Gender				
Male		Female		
1 (2.5%)		39 (97.5%)		
Age (years)				
19 or less	20-29	30-39	40-49	50-59
2 (5.0%)	17 (42.5%)	16 (40.0%)	3 (7.5%)	2 (5.0%)
Length of admission				
0-3 months	3-6 months	6-12 months	1-2 years	2 years+
14 (35.0%)	9 (22.5%)	6 (15.0%)	3 (7.5%)	8 (20.0%)

4.3 Construct validity – ACMQ and SHAS

Convergent validity of the AMScQ was assessed by having research respondents complete it in the same sitting as two well-established measures of attitude in relevant areas; the Attitudes to Containment Measures Questionnaire (ACMQ) and the Self-Harm Antipathy Scale (SHAS). The two comparison tools were chosen because they were closest in existing questionnaires in terms of theme and content, but not so close that they essentially measured the same factors, which would make the AMScQ redundant.

The ACMQ is an 11-question survey that describes commonly used containment measures throughout Europe, as a means of managing conflict on a mental health ward. (Bowers et al, 2004). Initially, the questionnaire was designed to measure participant ratings of acceptability, efficacy, safety and dignity for patients who are disturbed and require an intervention performed by psychiatric staff. Following principal components analysis, the ACMQ developers suggest that solely rating the acceptability of a method is adequate and provides an equally valid result as the 'acceptability' measure is highly correlated with each other aspect of the original scale. (Dack, Ross and Bowers, 2011). Respondents, therefore, rate their agreement with the acceptability of 11 methods of containment, on a 5-point Likert scale. Respondents also indicate whether they have used the technique (staff version) or been subject to it (service user version). The ACMQ has been shown to display high internal consistency (α=0.97) and significant correlations between sample groups (staff and patients). (Dack, Ross and Bowers, 2011). For the purpose of comparative validity, the second shortened version of the ACMQ was utilised and delivered to both staff and patient groups. Please see below for a full list of the containment measures investigated with the ACMQ.

1. PRN medication: Medication given at the nurses' discretion, in addition to regular doses, by any route and accepted voluntarily.
2. Physical restraint: Physically holding the patient, preventing movement.
3. Intermittent observation: An increased level of observation, of greater intensity than that which any patient generally receives, coupled with allocation of responsibility to an individual nurse or worker or periodic checks at intervals.
4. Seclusion: Isolated in a locked room.
5. Time out: Patient asked to stay in room or area for a period of time, without the door being locked.
6. Compulsory intramuscular sedation: Intramuscular injection of sedating drugs given without consent.
7. Psychiatric intensive care: Transfer to a specialist locked ward for disturbed patients.

8. Mechanical restraint: The use of restraining straps, belts or other equipment to restrict movement.
9. Constant observation: An increased level of observation, of greater intensity than that which any patient generally receives, coupled with allocation of responsibility to an individual nurse or another worker. Constant: within eyesight or arms reach of the observing worker at all times.
10. Net bed: Patient placed in a net bed enclosed by locked nets, which he or she is unable to leave.
11. Open area seclusion: Isolated in a locked area, accompanied by nurses.

Please see appendices XIV and XV for staff and service user versions of the ACMQ.

The SHAS is an instrument designed to measure attitudes towards self-harm and features 30 statements, to which the respondent has to describe their agreement/disagreement on a seven-point Likert scale (Patterson, Whittington and Bogg, 2007a). Statements may be either positively or negatively framed and are scored accordingly. A total score of 30 indicates lowest possible antipathy and a score of 210 indicates the highest antipathy. The authors completed a factor analysis and found that statements loaded to one of six categories; competence appraisal, care futility, client intent manipulation, acceptance and understanding, rights and responsibilities and needs function. The SHAS has good overall internal consistency (α=0.89) (Patterson, Whittington and Bogg, 2007a).

As the ACMQ measures attitudes towards general containment measures and the SHAS measures attitudes towards self-harm, they are appropriate benchmarks against which to compare a questionnaire designed to measure attitudes towards the management of a specific form of self-harm. It was anticipated that the AMScQ would correlate with some aspects of the ACMQ and SHAS. Five items on the ACMQ and AMScQ pair up; increased observations, PRN, seclusion, IM and control/restraint. Specific questions on the SHAS (such as ‘people should be allowed to self-harm in a safe environment’ and ‘an individual has the right to self-harm’) also match with questions on the AMScQ

pertaining to harm reduction techniques. As the three questionnaires are related but measure different specifics, it was not expected that correlation would be high throughout.

4.3.1 SHAS adjustment

The AMScQ was designed to gather and compare the attitudes of both staff and patient groups. The SHAS was designed primarily to measure the attitudes of staff groups who work with self-harming patients and, as such, contains statements that would be inappropriate if presented to a patient group. These statements came from the care futility factor (e.g. ‘A self-harming client is a complete waste of time) and the competence appraisal factor (e.g., I demonstrate warmth and understanding to self-harming clients in my care). Following omissions, 17 of the original 30 statements remained, relevant to both the staff and the service user group. Please see appendix XVI for the shortened version of the SHAS.

4.4 Procedure

The project was approved by the Abertay University Research Ethics Committee (appendix I). Permission to approach NHS Tayside staff was requested from and granted by Angus Community Mental Health Services Clinical, Care & Professional Governance Group.

The newly developed AMScQ was available in two formats; a paper copy and online version via the survey site Survey Monkey. Respondents also completed the ACMQ and the adjusted SHAS in the same sitting. Prior to completion of the questionnaires, nursing staff and previous service users were asked to read a participation information sheet which described the nature and format of the study, plus conditions of completion including responses being entirely anonymous and the right to withdraw at any time. Also included was information regarding who should be contacted if answering the questionnaire caused distress or the participants wished to contact the researchers with concerns or complaints. If happy to proceed, respondents were requested to tick a box that indicated they had given consent for their responses to be utilised in the project (see appendices X and XII) and to provide basic demographic details.

Questionnaire responses were kept secure in a locked filing cabinet when not in use for the paper version and in a password-protected folder for the online version.
IBM SPSS version 23 was used to record and analyse the data.

4.5 Data Analysis – AMScQ development

4.5.1 Test-retest reliability

To measure test-retest reliability, two assessments were used. For the questions answered on the Likert scale, intra-class correlations (ICC) were calculated. ICC results in a number between -1 and 1 with 1 indicating perfect positive correlation and -1 perfect negative correlation. ICCs of 0.71-0.79 are deemed fair, 0.80-0.89 good and >0.90 excellent (Cichetti,1994). For the questions regarding actual utilisation of a management technique (resulting in a yes/no answer), the reliability coefficient was calculated using levels of Kappa. Cichetti (1994) states that a coefficient of 0.40-0.59 is fair, 0.60-0.74 good and 0.75-1.00 excellent.

4.5.2 Principal components analysis following SHAS adjustment

A principal components analysis (PCA) serves to reduce the number of variables required by identifying for retention a set of variables (or components) which appropriately represent an underlying construct or latent variable, and flagging for removal of variables that do not. PCA also facilitates identification of factors within the multivariate construct, i.e., clusters of variables which represent meaningful and clinically useful subgroups of items – components or factors – which can enlighten our understanding of the construct. Following the adjustment of the SHAS from a 30-question tool to 17-questions, a PCA was relevant to consider how the remaining items group together. A Kaiser-Mayer-Olkin measure of sampling adequacy was conducted, with a score of ≥.90 described as excellent while scores <.50 are unacceptable (Field, 2005). A Bartlett's test of sphericity was also conducted to measure the assumption of equal variance. The number of factors extracted was set for those with Eigenvalues greater than 1. A varimax rotation with Kaiser normalisation was used to maximise loadings; varimax is utilised when factor loadings are high on one item and low on others. The most satisfactory factor structure was decided according to factors

comprised of three or more items and the smallest number of cross-loading items. None-loading items were removed from the analysis. The internal reliability of identified components was measured using Cronbach's alpha. George and Mallery (2003, p.231) provide the following rules of thumb with regard to alpha scores; >0.9 excellent, >0.8 good, >0.7 acceptable, >0.6 questionable, >0.5 poor, and <0.5 unacceptable. As the shortened version of the SHAS will be used as a tool against which the AMScQ is compared, a good level of internal reliability is desirable.

4.5.3 Correlation with AMCQ and shortened SHAS

Spearman's correlations are appropriate for use in ordinal data sets, such as those that use Likert scales. Correlation is again measured on a scale of -1 to 1, with (Weir 2017) stating that 0.20-0.39 indicates weak correlation, 0.40-0.59 moderate, 0.60-0.79 strong and 0.80-1.0 very strong.

4.5.4 Principal components analysis for AMScQ

The AMScQ comprises 18 items, each consisting of seven questions: six answered with a Likert rating scale and one answered with a yes/no response. By performing a PCA on the newly developed questionnaire, there is the opportunity to measure whether the 18 items exist as independent entities or if there is a significant crossover between the management techniques. A Cronbach's alpha score can then be used to measure the internal reliability of each component (see 4.5.2 for PCA guidelines).

4.6 Data Analysis – AMScQ participant testing

4.6.1 Independent samples t-test

An independent samples t-test is an inferential statistical test which compares the mean scores of unrelated samples, relevant in this case as the aim is to compare attitudes between groups (nursing staff and service users) and within groups (by dividing the sample population into demographic groups. Significance for the t-tests was set at $p<0.05$.

4.6.2 Effect size

Further to measuring statistical significance between groups, Sullivan and Feinn (2012) recommend that the magnitude of the results also be considered, by measuring the effect size. Cohen's d is the appropriate measure of effect size index if two groups are of similar size and have similar standard deviations, with results rated as small (d=0.2), medium (d=0.5) and large (d ≥ 0.8) (Sullivan and Feinn 2012).

4.7 Results

4.7.1 AMScQ development: pre-testing

With regard to the responses measured using the Likert scale, a fair degree of test-retest reliability (see 4.5.1) was found with an average intraclass correlation coefficient of 0.70 (95% CI, 0.66 to 0.74), p=0.05. For the questions regarding whether a patient or nurse had been subject to or utilised a method (with a yes/no response), again a good (approaching excellent, see 4.5.1) degree of reliability was found with an average Kappa score of 0.74 (95% CI, 0.65 to 0.84), p=0.02.

4.7.2 SHAS adjustment

A principal components analysis was carried out upon the shortened version of the SHAS (rotation method: varimax with Kaiser Normalisation). The Kaiser-Meyer-Olkin measure of sampling adequacy statistic was adequate (0.818) while Bartlett's test of sphericity was highly significant (p<0.001) indicating that principal components analysis was appropriate in this case.

Table 13: Principal components analysis for shortened version of SHAS

	1	2	3
When individuals self-harm it is often to manipulate carers	0.894		
People who self-harm are usually trying to get sympathy from others	0.877		
A self-harming client is a person who is only trying to get attention	0.746		
People who self-harm are typically trying to get even with someone	0.690		
Acts of self-harm are a form of communication to their situation		0.711	
Self-harming clients have a great need for acceptance and understanding		0.650	
Self-harming individuals can learn new ways of coping		0.644	
For some individuals self-harm can be a way of relieving tension		0.642	
An individual has the right to self-harm			0.857
People should be allowed to self-harm in a safe environment			0.796
A rational person can self-harm			0.526

Three items were found to be cross loading on the principal components analysis ('self-harm may be a form of reassurance for the individual that they are really alive', 'a person who self-harms deserves the highest standards of care on every occasion' and 'self-harm is a serious moral wrongdoing'); these were removed. A further three items (‘I would feel ashamed if a member of my family self-harmed’, ‘people who self-harm lack solid religious convictions’ and ‘there is no way of reducing self-harm behaviours’) were removed as each factor should contain at least three variables (Rahn, 2008).

4.7.3 Internal reliability of shortened SHAS

Following consideration of the groupings and themes central to each, the factors were labelled in three main groups. Group 1 was termed 'manipulation' and explained around 30% of the variance, with a Cronbach’s alpha rating of α=0.866. Group 2 was labelled 'function' and explained around 12% of the variance with a Cronbach’s alpha rating of α=0.674. The third group was labelled as 'rights' and explained about 9% of the variance with a Cronbach’s alpha rating of α=0.728. As per the guidelines noted in 4.5.2 therefore, group 1 displayed good internal reliability, group 3 displayed acceptable reliability while group 2 displayed questionable internal reliability.

4.8 Questionnaire Development - Results

It was hypothesised that five questions within the AMScQ would correlate to some degree with five specific questions within the ACMQ as the containment methods and management of self-cutting methods were very similar in nature and description. Spearman’s Rho correlations were used to test these hypotheses.

Table 14: Overall approval mean scores for AMScQ correlated with acceptability mean scores in ACMQ and rates of utilisation between questionnaires.

Management techniques	Correlation (approval) ($p<0.001$)	Correlation (utilized) ($p<0.001$)
Increase observations	0.325	0.304

IM	0.415	0.477
Seclusion/Isolation	0.358	0.224
PRN	0.375	0.390
Control/restraint	0.413	0.489

All five of the shared methods between the ACMQ and AMScQ were significantly correlated in terms of acceptability/approval and rates of utilization.

It was also hypothesised that specific statements which pertained to the 'rights' (factor 3 in the above PCA) of a patient to self-harm on the shortened SHAS would positively correlate with more pro-active methods of managing self-cutting, such as the harm minimisation techniques (provide first aid kit, advice on wound care, provide razor and be present to offer support during a cutting event).

Table 15: AMScQ Harm-minimisation techniques correlated with SHAS 'rights' component statements

	Provide first aid kit (AMScQ1)	Provide advice on wound care (AMScQ2)	Be present to offer support (AMScQ3)	Provide sterile cutting equipment (AMScQ13)
SHAS2	0.303 (p<0.001)	0.185 (NS)	0.202 (p=0.004)	0.516 (p<0.001)
SHAS3	0.321 (p<0.001)	0.223 (p=0.001)	0.120 (NS)	0.286 (p<0.001)
SHAS6	0.179 (NS)	0.084 (NS)	0.179 (NS)	0.341 (p<0.001)

Due to multiple testing, a Bonferroni correction was applied (12 tests/0.05) and a new p-value of <0.004 required for findings to be significant. The hypothesis is borne out that harm-minimisation methods in the AMScQ are generally significantly correlated in at least one instance each with the SHAS statements identified as pertaining to patients 'rights' by the principal components analysis. AMScQ question number 13 (provide sterile cutting implements such as razors or scalpels) is significantly correlated in all three SHAS questions pertaining to patient rights.

4.9 Principal components analysis – AMScQ

Principal components analysis was carried out on the AMScQ mean scores to evaluate and if possible reduce the number of variables, to ensure that none of the questions were redundant (rotation method: varimax with Kaiser Normalisation). The Kaiser-Meyer-Olkin measure of sampling adequacy statistic was adequate (0.720) while Bartlett's test of sphericity was highly significant ($p<0.001$) indicating that principal components analysis was appropriate in this case. Please see Appendix XII for full principal components analysis.

Of the 18 management techniques, the results for 16 displayed that they were distinct variables. Two methods loaded onto the same component: '4: increasing obs to special' and '5: increasing obs to close'. Given how similar these two management techniques are in nature, the decision was made to omit one. Cronbach's alpha scores were 4: $\alpha=0.906$ and 5: $\alpha=0.927$. As such, question four was omitted from further statistical tests.

Table 16: Cronbach's alpha scores for each factor identified within the principal components analysis

Item	1	2	3	4	5	6	7	8	9
Cronbach's α	0.919	0.935	0.949	0.906	0.927	0.929	0.954	0.942	0.804
Item	10	11	12	13	14	15	16	17	18
Cronbach's α	0.949	0.953	0.961	0.948	0.947	0.958	0.943	0.968	0.946

Table 16 demonstrates that 17 of the 18 items display 'excellent' internal reliability (see 4.5.2). The average Cronbach's alpha score across all 18 items is 0.935.

4.10 Results - Attitudes towards the Management of Self-Cutting Questionnaire

4.10.1 – Comparisons between staff and service users

Overall approval ratings were calculated by combining scores for each aspect of attitude towards a management technique (e.g. effectiveness, acceptability, etc) and taking a mean score. The lower the mean score, the higher approval rating

(as in the questionnaire a score of 1 indicated ‘strongly agree’ while a score of 5 indicated ‘strongly disagree’).

Table 17: Comparison between mean scores for overall approval ratings of each technique on AMScQ, plus independent samples t-test scores as a measure of significance in the difference between groups. Effect size was calculated using Cohen’s *d* as this is an appropriate measure of effect size if two mean scores are of similar size, with similar standard deviations.

Method	Mean score (SD) - staff	Staff ranking	Service user ranking	Mean score (SD) – service user	Independent Samples t-test	Effect size (Cohen’s d)
Therapeutic interventions	7.94 (2.79)	1st	5th	11.30 (4.95)	t(213)=-5.823, p<0.001	0.84
Care plan	7.97 (2.80)	2nd	1st	10.08 (3.49)	t(213)=-3.561, p=0.001	0.67
Suggest passive distraction	8.30 (2.89)	3rd	3rd	11.08 (4.22)	t(213)=-3.961, p<0.001	0.77
Advice on wound care	8.97 (3.25)	4th	2nd	10.65 (3.45)	t(213)=-2.923, p=0.004	0.50
Make other staff aware	9.65 (3.87)	5th	8th	14.55 (5.48)	t(213)=-6.648, p<0.001	1.03
Suggest active distractions	10.29 (4.45)	6th	7th	13.93 (4.65)	t(213)=-4.496, p<0.001	0.80
Provide first aid kit	10.47 (3.71)	7th	6th	12.35 (4.46)	t(213)=-2.785, p=0.006	0.46
PRN	11.71 (4.30)	8th	4th	11.08 (4.43)	Not significant	0.14
Obs to close	15.55 (5.03)	9th	10th	16.58 (5.31)	Not significant	0.20
Obs to intermittent	16.49 (5.61)	10th	9th	14.65 (5.14)	Not significant	0.34
Be present to offer support	17.51 (5.81)	11th	11th	17.68 (6.19)	Not significant	0.03
Provide razor	17.60 (5.60)	12th	12th	17.95 (6.20)	Not significant	0.06
Seclusion	17.83 (6.60)	13th	13th	20.68 (5.75)	t(213)=-2.512, p=0.013	0.46
Physical restraint	21.52 (5.81)	14th	15th	24.40 (5.67)	t(213)=-2.840, p=0.005	0.50
IM	23.00 (6.21)	15th	14th	23.70 (5.22)	Not significant	0.12
Refuse treatment	27.32 (4.22)	16th	16th	25.75 (5.13)	Not significant	0.33
Inappropriate treatment	27.48 (3.98)	17th	17th	28.00 (2.52)	Not significant	0.16

Table 17 displays significant differences in the top seven preferences for management techniques between nursing staff and service users, both in terms of mean scores of approval and in ratings. In all but three of the methods (PRN, obs to intermittent and refusal of treatment) staff approve more strongly of the techniques than service users. However, these three exclusions are not significant. The effect size for the top six results is moderate to high (Cohen, 1988). Staff approve of seclusion and physical restraint significantly more than service users, again with moderate effect size.

Table 18: Overall ranks for each aspect of staff attitude

Rank	Technique	(a)	(b)	(c)	(d)	(e)	(f)	Total
1	Therapeutic interventions	1	1	2	2	1	1=	8
		1.38 (0.57)	1.27 (0.46)	1.31 (0.51)	1.34 (0.50)	1.35 (0.53)	1.29 (0.47)	
2	Care plan	2	2	1	1	2	1=	9
		1.41 (0.62)	1.29 (0.47)	1.30 (0.47)	1.33 (0.51)	1.37 (0.53)	1.29 (0.47)	
3	Suggest passive distractions	3	3	3	3	3	3	18
		1.48 (0.60)	1.35 (0.49)	1.36 (0.52)	1.36 (0.50)	1.42 (0.60)	1.33 (0.48)	
4	Provide advice on wound care	4	4	4	4	4	4	24
		1.50 (0.64)	1.43 (0.57)	1.45 (0.57)	1.52 (0.64)	1.59 (0.66)	1.47 (0.61)	
5	Make other staff aware	5	5	7	5	5	5	32
		1.59 (0.67)	1.50 (0.61)	1.82 (0.87)	1.57 (0.71)	1.65 (0.76)	1.53 (0.67)	
6	Suggest active distractions	7	6	6	6	6	6	37
		1.88 (0.85)	1.65 (0.77)	1.73 (0.82)	1.66 (0.76)	1.70 (0.81)	1.67 (0.79)	
7	Provide first aid kit	6	7	5	7	7	7	39
		1.81 (0.74)	1.67 (0.70)	1.67 (0.70)	1.79 (0.71)	1.82 (0.76)	1.69 (0.76)	
8	PRN	8	8	8	8	8	8	48
		2.07 (0.81)	1.94 (0.74)	1.94 (0.77)	1.86 (0.68)	2.01 (0.82)	1.90 (0.74)	
9	Increase obs to close	9	9	12	9	9	9	57
		2.69 (1.07)	2.52 (0.96)	3.03 (0.99)	2.40 (0.92)	2.50 (0.93)	2.42 (1.00)	
10	Increase obs to intermittent	11=	10	10	10	11	10	62
		2.93 (1.09)	2.63 (1.01)	2.73 (0.97)	2.68 (1.03)	2.82 (1.06)	2.70 (1.03)	
11	Be present to offer support	11=	11	11	12	10	13	68
		2.93 (1.09)	2.68 (1.08)	2.86 (1.04)	3.07 (1.09)	2.71 (1.01)	3.09 (1.25)	
12	Provide razor	10	12	9	13	12=	12	68
		2.89 (0.99)	2.94 (1.00)	2.70 (1.03)	3.11 (0.99)	2.91 (1.01)	3.06 (1.09)	
13	Seclusion	13	13	13	11	12=	11	73
		2.99 (1.14)	3.01 (1.17)	3.16 (0.25)	2.82 (0.66)	2.91 (1.19)	2.94 (1.19)	
14	Physical restraint	14	14	14	14	14	14	84
		3.39 (1.16)	3.45 (1.16)	3.97 (0.92)	3.68 (1.01)	3.64 (1.07)	3.38 (1.15)	
15	IM	15	15	15	15	15	15	90
		3.63 (0.25)	3.73 (1.19)	4.19 (0.91)	3.86 (1.07)	3.90 (1.08)	3.68 (1.24)	
16	Refuse treatment	17	16	17	16	16	16	98
		4.53 (0.77)	4.59 (0.74)	4.59 (0.74)	4.47 (0.81)	4.58 (0.75)	4.56 (0.82)	
17	Inappropriate medical treatment	16	17	16	17	17	17	100
		4.51 (0.76)	4.63 (0.70)	4.55 (0.79)	4.54 (0.73)	4.61 (0.72)	4.67 (0.68)	

(Key: a) effectiveness b) acceptability c) maintains service user dignity d) safe for staff e) safe for service users f) would be prepared to use).

Table 19: Overall ranks for each aspect of service user attitude

Rank	Technique	(a)	(b)	(c)	(d)	(e)	(f)	Total
1	Care plan	1=	1	1	1=	1	2	7
		1.83 (0.84)	1.58 (0.64)	1.53 (0.55)	1.68 (0.57)	1.78 (0.62)	1.70 (0.79)	
2	Provide advice on wound care	1=	4	4	3=	2	1	15
		1.83 (0.71)	1.70 (0.65)	1.75 (0.67)	1.83 (0.75)	1.88 (0.79)	1.68 (0.62)	
3	Suggest passive distractions	6	2=	2=	1=	3=	6	20
		2.20 (1.09)	1.65 (0.74)	1.70 (0.72)	1.68 (0.66)	1.93 (0.89)	1.93 (0.94)	
4	PRN	3	5	5	2	5	3	23
		1.90 (0.84)	1.75 (0.78)	1.83 (0.78)	1.78 (0.80)	2.00 (0.78)	1.83 (0.98)	
5	Therapeutic interventions	4	2=	2=	9	3=	4=	24
		1.93 (0.83)	1.65 (0.62)	1.70 (0.69)	2.20 (3.28)	1.93 (0.89)	1.90 (1.01)	
6	Provide first aid kit	5	10	6	7	7	4=	39
		2.13 (0.88)	2.82 (0.82)	1.95 (0.71)	2.10 (0.98)	2.28 (1.06)	1.90 (0.87)	
7	Suggest active distractions	11	6	7	3=	6	9	42
		3.10 (1.22)	2.13 (1.04)	2.05 (0.81)	1.83 (0.78)	2.15 (0.92)	2.68 (1.25)	
8	Make other staff aware	7	7	10	6	9	8	47
		2.40 (0.98)	2.23 (1.05)	2.58 (0.95)	2.05 (1.04)	2.53 (1.04)	2.50 (1.04)	
9	Increase obs to intermittent	8	8	9	8	10	7	50
		2.60 (1.15)	2.30 (1.02)	2.53 (1.04)	2.18 (0.90)	2.60 (1.15)	2.45 (1.04)	
10	Increase obs to close	9	9	12	10	8	12	60
		2.63 (1.10)	2.60 (1.15)	3.30 (1.18)	2.38 (0.87)	2.45 (0.99)	3.23 (1.27)	
11	Be present to offer support	10	11	11	12	11	11	66
		2.98 (1.10)	2.85 (1.17)	2.95 (1.22)	3.00 (0.99)	2.83 (1.03)	3.08 (1.37)	
12	Provide razor	12	12	8	13	13	10	68
		3.13 (1.24)	3.00 (1.28)	2.40 (1.13)	3.23 (1.10)	3.43 (1.22)	2.78 (1.46)	
13	Seclusion	14=	13	13	11	12	13	76
		3.58 (1.15)	3.53 (1.18)	3.63 (1.13)	2.95 (1.15)	3.38 (1.03)	3.63 (1.17)	
14	IM	13	15	16	14	14	14	86
		3.48 (1.24)	4.10 (1.03)	4.48 (0.75)	3.53 (1.18)	3.95 (1.08)	4.18 (1.15)	
15	Physical restraint	14=	14	15	16	15	15	89
		3.58 (1.36)	4.00 (1.11)	4.45 (0.85)	3.98 (1.14)	4.05 (1.08)	4.35 (1.03)	
16	Refuse treatment	16	16	14	15	16	16	93
		4.38 (0.93)	4.35 (0.92)	4.25 (1.15)	3.88 (1.09)	4.53 (0.82)	4.38 (0.93)	
17	Inappropriate medical treatment	17	17	17	17	17	17	102
		4.75 (0.54)	4.78 (0.48)	4.80 (0.56)	4.23 (0.89)	4.80 (0.46)	4.65 (0.89)	

(Key: as above)

4.10.2 Differences within groups relating to demographics

In previous measures of nursing staff and patient attitudes towards self-harm, some papers (Muehlenkamp et al, 2013) have found significant differences between distinct demographic groups (age, gender, length of service) while others (Gibb, Beautrais and Surgenor, 2010) have not. With this in mind, differences in mean scores relating to demographic group across were investigated.

4.10.2.1 Staff group

There was no impact of staff gender on scores for the AMScQ ($p<0.05$). Due to the small number of Healthcare Assistants and Student Nurses in the overall staff sample, differences relating to staff position were not examined. Due to the relatively small numbers of participants in some of the groupings for age and length of service, classifications were grouped together so that only two sub-classifications occurred in each grouping. Age: 'under 40' (n=73) and '40 and older' (n=102). Length of service was adjusted in two ways. The first was splitting the group by considering the median age so that the two sub-groups would have roughly equal numbers of participants: '0-15 years' (n=88) and '16 years or more' (n=87). The second was splitting the length of service into 'early-career' nurses (i.e. 5 years or less, n=57) and more experienced nurses (n=118). These groups were then subjected to independent samples t-tests to consider any significant relationships with specific AMScQ scores.

Table 20: Significant relationships between age groups and methods on AMScQ

Method	Under 40 mean (SD)	40 and over mean (SD)	Independent samples t-test	Effect size (Cohen's d)
Advice wound care	8.38 (3.16)	9.38 (3.27)	t(173)=-2.022, p=0.045	0.31
IM	21.33 (6.29)	24.20 (5.90)	t(173)=-3.085, p=0.002	0.47
Obs to intermittent	15.03 (5.45)	17.54 (5.50)	t(173)=-2.990, p=0.003	0.46
Passive distraction	7.64 (2.55)	8.76 (3.04)	t(173)=-2.644, p=0.009	0.40
Restraint	20.38 (5.49)	22.33 (5.93)	t(173)=-2.212, p=0.028	0.34

Table 20 demonstrates that on occasions where significant differences occurred in mean scores for approval ratings of AMScQ methods, younger staff approved

more highly of the abovementioned methods (a lower score indicating higher approval). Effect sizes were small to moderate.

Table 21: Staff utilisation of each method described on AMScQ, divided by condensed age group (significant findings only)

Method	Under 40 mean (SD)	40 and over mean (SD)	Independent samples t-test	Effect size (Cohen's d)
Therapeutic intervention	1.15 (0.40)	1.05 (0.22)	t(173)=1.986, p=0.05	0.31
Care plan	1.25 (0.43)	1.12 (0.32)	t(173)=2.146, p=0.034	0.34
Seclusion	1.63 (0.49)	1.45 (0.50)	t(173)=2.375, p=0.019	0.36
Passive distraction	1.12 (0.33)	1.02 (0.14)	t(173)=2.521, p=0.013	0.39
PRN	1.32 (0.47)	1.10 (0.30)	t(173)=3.487, p=0.001	0.56
Control and restraint	1.77 (0.43)	1.59 (0.51)	t(173)=2.511, p=0.013	0.38

Table 21 above shows that where significant findings are to be found, they indicate that nursing staff who are older have utilised these management techniques more frequently than the younger age group (a figure closer to 1 indicates higher rates of use). Effect sizes varied from small to moderate.

Table 22: Significant relationships between length of service and methods on AMScQ

Method	Under 16 years (SD)	16 years+ (SD)	Independent samples t-test	Effect size (Cohen's d)
Advice wound care	8.40 (3.07)	9.54 (3.34)	t(173)=-2.355, p=0.020	0.36
IM	21.18 (6.73)	24.84 (5.04)	t(173)=-4.073, p<0.001	0.62
Obs to intermittent	15.35 (5.65)	17.64 (5.35)	t(173)=-2.755, p=0.006	0.42
Passive distraction	7.82 (2.60)	8.78 (3.10)	t(173)=-2.227, p=0.027	0.34
Restraint	20.27 (5.98)	22.78 (5.39)	t(173)=-2.915, p=0.004	0.44

Similar to table 20 above, table 22 demonstrates that a greater length of service is significantly associated with lower approval of the same five methods of managing self-cutting (a lower score indicating higher approval). Effect sizes ranged from small to moderate, although a larger effect was noted in the comparison regarding IM, with less experienced staff approving more strongly of this technique.

Table 23: Staff utilisation of each method described on AMScQ, divided by condensed length of service (significant findings only)

Method	0-15 years group mean (SD)	16 years+ group mean (SD)	Independent samples t-test	Effect size (Cohen's d)
Obs to special	1.45 (0.50)	1.28 (0.45)	t(173)=2.484, p=0.014	0.36
Active distraction	1.30 (0.46)	1.16 (0.37)	t(173)=2.137, p=0.034	0.34
Therapeutic intervention	1.15 (0.39)	1.03 (0.18)	t(173)=2.474, p=0.015	0.40
Care plan	1.25 (0.44)	1.09 (0.29)	t(173)=2.827, p=0.005	0.43
Seclusion	1.60 (0.49)	1.45 (0.50)	t(173)=2.053, p=0.042	0.30
Passive distraction	1.11 (0.32)	1.01 (0.101)	t(173)=2.844, p=0.005	0.42
PRN	1.27 (0.45)	1.10 (0.31)	t(173)=2.921, p=0.004	0.44

Table 23 shows that where significant, staff with a longer duration of service have utilised management techniques more frequently than the younger age group (a figure closer to 1 indicates higher rates of use). Effect sizes ranged from small to moderate.

Table 24: Significant relationships between length of service and methods on AMScQ, when length of service is adjusted between early career staff and those with 6 years or more service.

Method	0-5 years group mean (SD)	6 years+ group mean (SD)	Independent samples t-test	Effect size (Cohen's d)
Advice on wound care	7.88 (2.96)	9.49 (3.26)	t(173)=-3.265, p=0.001	0.52
Obs to special	16.33 (5.26)	18.06 (5.01)	t(173)=-2.101, p=0.037	0.34
Obs to close	14.40 (4.72)	16.11 (5.09)	t(173)=-2.127, p=0.035	0.35
Therapeutic interventions	7.35 (2.35)	8.22 (2.95)	t(173)=-2.105, p=0.037	0.33
IM	21.58 (6.60)	23.69 (5.92)	t(173)=-2.125, p=0.035	0.34
Care plan	7.28 (2.19)	8.31 (3.00)	t(173)=-2.300, p=0.023	0.39
Obs to intermittent	14.58 (4.72)	17.42 (5.78)	t(173)=-3.456, p=0.001	0.54
Passive distraction	7.30 (2.23)	8.78 (3.06)	t(173)=-3.634, p<0.001	0.55

Table 24 demonstrates that when considering more recently qualified nursing staff as a sub-group compared to more experienced staff, rates of approval are

significantly higher for a number of methods of managing self-cutting in mental health wards. Effect sizes varied from small to moderate.

To summarise differences in approval ratings of management techniques linked to nursing staff demographics, younger and less experienced staff tend to approve more highly of a range of techniques, despite having utilised less of them less often. However, no difference was noted when taking gender into account and the representative ratio of student nurses and healthcare assistants was too low to measure any significant differences in approval/rates of utilisation on this occasion.

4.10.2.2 Service user group

Again, due to the relatively small number of participants in the service user groups for age and length of admission, these were reclassified as either one of two sub-categories. Age; 29 or younger (n=19) or 30 and above (n=21) and length of admission: 0-6 months (n=23) and 6 months and over (n=17). As only one participant in the service user group was male, gender was not considered.

Table 25: Significant relationships between age of service user and overall approval of AMScQ methods

Method	29 or younger (SD)	30 or above (SD)	Independent samples t-test	Effect size (Cohen's d)
Inappropriate treatment	27.00 (2.91)	28.90 (1.73)	t(38)=-2.486, p=0.019	0.79
Refuse treatment	24.05 (5.74)	27.29 (4.05)	t(38)=-2.074, p=0.045	0.65
IM	21.53 (5.82)	25.67 (3.76)	t(38)=-2.644, p=0.013	0.84
Restraint	21.89 (5.82)	26.67 (4.55)	t(38)=-2.903, p=0.006	0.92

Table 25 above shows that the younger age group approve more strongly of the most reactive and restrictive methods than the older age group of service users. Effect sizes were moderate to large within these results, particularly with regard to physical restraint.

There were no significant relationships between age of service user and rates of utilisation of management techniques.

Table 26: Significant relationships between service user length of admission and overall approval of AMScQ methods

Method	0-6 months	Over 6 months	Independent samples t-test	Effect size (Cohen's d)
First aid kit	10.96 (2.84)	14.24 (5.55)	t(38)=-2.230, p=0.036	0.74
Restraint	26.04 (4.19)	22.18 (6.70)	t(38)=-2.095, p=0.046	0.69

Table 26 above shows that service users with shorter durations as inpatients approve more strongly of provision of a first aid kit following a cutting event and disapprove more of control/restraint methods.

Table 27: Service user experience of being subjected to each method described on AMScQ, divided by condensed length of admission (significant findings only)

Method	0-6 months group mean (SD)	Over 6 months group mean (SD)	Independent samples t-test	Effect size (Cohen's d)
Refusal of treatment	1.74 (0.45)	1.41 (0.51)	t(38)=2.157, p=0.037	0.69
IM	1.74 (0.45)	1.35 (0.49)	t(38)=2.581, p=0.014	0.83
Seclusion	1.65 (0.49)	1.29 (0.47)	t(38)=2.333, p=0.025	0.75
PRN	1.30 (0.47)	1.00 (0.00)	t(38)=3.102, p=0.005	0.90
Control and restraint	1.74 (0.45)	1.29 (0.47)	t(38)=3.018, p=0.005	0.98

Table 27 above shows that where significant findings are to be found, they indicate that service users who had longer admissions have been subjected to management techniques more frequently than the younger age group (a figure closer to 1 indicates higher rates of use). Moderate to large effect sizes supported these significant findings.

To summarise differences in approval ratings of management techniques linked to service user demographics, those with lower total lengths of admission had less experience of being subjected to the various techniques for managing methods of self-cutting. However, those who were younger in age and had spent

less time in hospital approved more strongly of both a permissive method (providing a first aid kit) and a restrictive method (control and restraint).

4.11 Discussion

The primary aim in the development of the Attitudes towards Management of Self-Cutting Questionnaire was to begin to address the dearth of information relating to how self-cutting is dealt with in hospitals. A further aim was to determine if preferences exist for various strategies between nursing staff and service user groups.

4.11.1 Developing the AMScQ

It was necessary to develop the AMScQ as the systematic review of the literature identified that there are currently no tools available that aim to measure attitudes to self-cutting. While various methods of self-harm exist, cutting is the predominant means of self-injury and requires a different management approach within a mental health ward than self-poisoning or severe forms of self-harm born out of a desire to end one's life. A questionnaire designed specifically for mental health nurses was necessary as this body of staff have the most contact with patients who self-harm, while also being applicable to and accessible for completion by previous service users, so that direct comparisons on attitude could be measured. The potential range of approaches is very varied and can be tailored to individuals as necessary. Individuals may be subject to management approaches varying from very passive (e.g. distraction techniques) to very restrictive (e.g. control and restraint), while there also exists the opportunity for harm minimisation techniques (e.g. provision of clean implements for cutting) which are not appropriate in the management of other forms of harm. Interest in harm minimisation techniques has grown in recent years (Gutridge, 2012) but has currently only been utilised on a small scale and is yet to be tested empirically.

The evidence noted above supports the AMScQ as both a reliable and valid measure of attitudes towards the management of self-cutting, both in professional and service user populations. Initial consideration of the face validity

occurred when the draft questionnaire was presented to groups of both nursing staff and service users. Responses to these lead to expansions of the method descriptions for clarity. Test-retest measures of the questionnaire were used as a measure of reliability and proved to be good in both the questions utilising the Likert scale (approval ratings) and those with a yes/no response (rates of utilisation).

Although specific to the management of one means of harm, the questionnaire correlates positively (from 0.304 to 0.477, $p<0.001$) with related items in the ACMQ, which looks at attitudes towards containment measures in general. Questions on the ACMQ relating to harm minimisation techniques were also found to correlate positively (from 0.179 to 0.516, $p<0.01$ to $p<0.001$) with questions on the SHAS pertaining to the rights of those who self-harm. The internal consistency of the AMScQ was good, with only one item found to be redundant; exploratory principal components analysis revealed a 17-factor construct, which loaded neatly into the 18-question format. This suggests that each method of management has a unique combination of approval or disapproval for each of the six aspects; effectiveness, acceptability, respecting patient dignity, safe for patients, safe for staff and how prepared individuals might be to either utilise the method or be subjected to it. The principal components analysis reveals that it is not appropriate to simply talk about attitudes to managing self-cutting in general, but rather attitudes towards specific management techniques.

4.11.2 Disparity between attitudes of nursing staff and service users on methods of managing self-cutting

It was hypothesised that there would exist disparity between the opinions of the two groups (staff and service users), and within groups based on demographic differences. Disparity was found in both the rating of the management techniques and their perceived overall approval. Staff ranked therapeutic interventions (mean score: 7.89) as the most useful method compared to a rating of fifth (mean score 11.30) in the service user group, while in the top seven rated methods by staff, their mean score was significantly lower (indicating higher approval) than the service user group. Effect sizes varied in support of the significant findings,

but were notably large in regard to differences between group mean scores on making other staff aware, therapeutic interventions and providing distraction (both passive and active).

Similar results were described by Huband and Tantam (2004) who described disparate attitudes to interventions following self-wounding by clinicians and patients. Patients rated the development of a meaningful therapeutic relationship with a single key-worker as being the most effective intervention, while access to a 24-hour emergency contact via telephone was also rated highly. Conversely, clinicians rated these interventions at 8th and 11th respectively (from fourteen). Meanwhile, clinicians rated routine discussions between professional staff as the most preferred intervention following self-harm, while teaching the patient methods of relaxation was ranked third. The patient groups rated these techniques as 8th and bottom respectively. Comparable findings were reported by Whittington et al (2009) who described an incongruity in attitudes towards containment measures between staff and service user groups. Patients rated intermittent observations, a period of time out and the use of as required medication highly, while staff members described transfer to in intensive psychiatric care unit as the most preferred method (although PRN and increased observations also ranked highly).

Fundamentally, the present study is unable to describe the cause of the disparities. However, a hypothesis is that they may be caused by a misunderstanding of the functions of self-harm and a lack of realisation by staff as to how beneficial working through the issues that underlie the harm are (such as therapeutic interventions), compared to more passive and immediate techniques (such as distraction). Equally, there may be issues in regard to the perception of staff and service user safety. While staff uniformly ranked each measure as equally safe (or unsafe) for each management technique between the two groups, service user responses were far more varied. Regardless of the cause, the finding of incongruity in attitudes between this and the abovementioned studies predisposes towards discord within an inpatient ward on how self-harm is managed.

4.11.3 Disparity between rates of utilisation

Disparity also existed in the descriptions by staff and service users of their experiences of having used or been subjected to the various methods. It is not possible, however, to directly compare the figures noted in the two groups. A single service user was asked to comment on his or her own personal experience whereas a single nurse was asked to comment on a number of experiences that potentially might span decades, in multiple wards, with hundreds or thousands of patients. Although direct, quantitative comparisons could not be drawn, disparities in rates of utilisation should not be ignored and deserve further examination. For example, care planning was rated highly by both groups (1st and 2nd), but rates of utilisation differed markedly. This method of managing self-harm is advocated within the NICE guidelines (2011) with the recommendation that it occurs as a collaborative process. The disparity between utilisation rates of care planning between staff and patients may occur as staff are filling out care plans on their clients' behalf, rather than in partnership with them. This reflects Bosman and Meijel's (2008) finding that self-harm is not easily discussed between staff and patients, with barriers including lack of time to spend with individuals and nursing staff concerns that talking about the action may incite or reinforce it. Delivery of therapeutic interventions differed by nearly a third, with almost all staff stating they had performed these but only two-thirds of service users describing having received them.

4.11.4 Component elements of overall attitudes

Attitudes towards each method of management were broken down into component parts in terms of effectiveness, acceptability, maintaining patient dignity, safety for staff and patient and how prepared each group would be to utilise a method. Within the staff group, ratings were generally consistent across each method for the constituent items although it was noted that placing a patient under close observations was rated 9th overall (mean 15.55) but 12th (mean 3.03) for patient dignity in the nurse group. These positions were reversed for the harm minimisation technique of providing a razor (overall mean: 17.60, patient dignity mean: 2.70). Within the patient group, individual ratings were irregular, an example being that the suggestion of passive distractions was rated highly regarding staff safety, acceptability and maintaining dignity, but far lower in terms

of effectiveness and whether service users would be prepared to be subjected to the method. Dack, Ross and Bowers (2011) found similar results in relation to containment measures to the staff ratings noted here, where attitudes towards each component of the technique were largely consistent. Dack, Ross and Bowers (2011) state that staff tend to have consistent views per method of containment but view each method independently of each other method, so there is not an overall attitude to containment. Service users with either lived experience of management techniques or outside observer status of fellow patients being subjected to the methods may be more inclined to pick apart their impact, drawing distinctions between what is effective and what is safe or dignified.

4.11.5 Disparity within group based on nursing staff demographics

Within the staff group, some differences in mean approval score occurred. Younger and more inexperienced staff (under the age of 40, with under 16 years of service) approved more highly of the restrictive methods of management such as a restraint, IM and increasing obs. The effect size with regard to IM was in the medium range (0.62) with other significant findings supported by moderate to medium effect size measurements. However, younger and more inexperienced also approved more highly of the more permissive methods of providing advice on wound care and passive distraction. This is comparable to Huband and Tantam's (2000) finding that younger, less experienced staff tended to take a 'firmer' approach in the management of self-harm. The length of service demographic was further demarcated to compare early career staff (up to 5 years) with those who had 6 years' experience and above. While this group were significantly more likely to approve of care planning, therapeutic interventions and providing advice on wound care, they also approved more strongly of utilising IM as a means of managing self-cutting.

Nursing staff with less experience (in the current study) had utilised restraint and passive distraction significantly less often than the older and more experienced staff. As might be expected, this group had utilised all management techniques less overall.

4.11.6 Disparity within group based on service user demographics

Within the service user group, age had a significant impact on attitudes towards the four least approved methods of management (inappropriate treatment or refusal, IM and restraint), with older service users (30 years or above) disapproving more strongly than those under 30. Conversely, restraint was less approved of by those with a shorter total admission duration (up to 6 months) with an effect size of 0.69 while those with longer hospital admissions approved more of the harm minimisation technique of providing a first aid kit (effect size of 0.74). Regarding rates of utilisation, significantly higher rates of service users with longer admissions had been subject to refusal of treatment, seclusion, PRN and control/restraint.

The results of utilisation rates in both groups suggest that nursing staff and service users tend to rate management techniques such as restraint more highly the less they have been subjected to or utilised them. Therefore, the act of actually restraining or being restrained is significantly different from expectations of how it might be. There does exist within the literature a consensus that restraint is a technique which should be avoided were possible; consideration is being given to how it can be reduced and replaced (Steinert et al, 2010).

4.11.7 Models > Treatment

As previously noted (section 1.4), there are various models that account for self-harming and self-cutting behaviour and the function of the action may vary within one person across a series of cutting events. As such, within the confines of a mental health ward it would be likely that a person-centred and situation specific approach will be more effective depending on the basis of the behaviour at a given point. For example, a person who is experiencing high arousal and using avoidance in regard to their negative emotional state (as per Chapman, Gratz and Brown (2006) experiential avoidance model) may benefit more by being distracted by staff (in the first instance) than by care planning or working together on therapeutic interventions, which they might not be in a position to focus on at that time. Equally, a service user who is utilising cutting as an aspect of an anti-suicide drive (Suyemoto, 1998) may benefit more from the implementation of harm-minimisation techniques in which the risk of serious damage is reduced,

whereas distraction methods may be more irritating than effective. Meanwhile, a patient who is cutting as a delayed response to trauma, such as in Morris et al (2015) where powerlessness was a key factor might be aided by the opportunity to discuss this as part of a therapeutic intervention. The drive towards a person-centred care approach is not without difficulty, as described by O'Donovan (2007). While in essence the notion is described as desirable for the treatment of self-harm by both nursing staff and service users; the actual cultivation of the approach may be stymied by a lack of clear ward philosophy or direction. Equally, it may come into conflict with the coercive methods adopted in times of conflict between the two groups.

4.11.8 Harm Minimisation

Of the four harm minimisation management techniques for self-cutting examined in this study, providing advice on wound care was rated most highly by both nursing staff and service users, and had been utilised by three-quarters of staff and just over one-third of service users. Provision of a first aid kit had been utilised by 35-45% of respondents. Provision of a sterile razor and nurses being present to offer support for a patient during a cutting event had only been used by a small number of staff (6.3%) and patients (7.5%), despite both rating more highly in terms of overall approval than much more commonly utilised approaches such as seclusion, control/restraint and intramuscular medication, given without consent.

4.11.8.1. Harm minimisation as a concept

The topic of harm minimisation techniques in relation to self-harm periodically emerges in academic literature. Clarke and Whitaker (1998) made the statement that it is important for patients to have their autonomy respected and be given the opportunity to manage their own behaviours and responsibilities. Meanwhile, Morgan (2004) asserts that harm minimisation will only be successful if backed by management, understood by the staff and includes discussion with the service user. The process should be motivated by clinical considerations rather than stymied by administrative deliberation. More recently, a harm minimisation approach was being cited as preferential to abstinence, given the recognition that

self-harm can be a means of preserving one's life rather than trying to end it. (Mangnall and Yurkovich, 2008).

While attitudes towards harm minimisation techniques may include the idea that it is counter-intuitive to nursing care, it has been posited (Cresswell and Karimova, 2010) that self-harm through such means as cutting needs to be recognised on a spectrum of destructive behaviours that many of the population indulge in; from over-eating to over-exertion at the gym to smoking and drinking alcohol. These actions are performed not to end one's life but as a means of coping with stressors and total abstinence would not be expected in addressing them, rather a method of reduction during which healthier coping mechanisms can be explored and developed. Cresswell and Karimova (2010) state that a harm minimisation approach should neither celebrate nor condone self-harm methods such as cutting, but it should be an opportunity to re-assess the behaviour as helpful to that individual rather than simply a destructive act. The NICE guidelines (2011) describe the possibility for harm minimisation approach in the short-term management of self-harm, acceding that for some service users simply stopping is not a viable option and a reduction in severity or frequency is an acceptable intermediate step. Birch et al (2011) place harm minimisation within a positive risk-taking approach wherein it is recognised that risk cannot always be completely eradicated but can be managed, reduced and explored in a way that contributes to the greater therapeutic environment.

In a study considering whether harm minimisation is a legally, ethically and morally acceptable approach in the treatment of self-harm, Gutridge (2012) raises a number of points. With regard to the law, a nurse could be held responsible if the patient had not consented to the treatment (or lacked capacity to do so) or if death resulted from utilisation of harm minimisation techniques, through negligence and failure to recognise the clinical risks. However, patients with capacity should be encouraged in their own autonomy and while no form of harm should be condoned, in some cases and for some patients, monitored self-injury should be tolerated as a short-term means of coping. In terms of care planning, Gutridge (2012) suggests a framework in which harm minimisation might be considered. Forethought must be given to the function and site of the

harm (upon the body), plus the site of the harming act in the context of the wider ward. Staff must consider whether allowing the self-harm will result in a more balanced cognitive state (thus enabling further therapeutic interventions) and the nature of their own relationship with the patient (will the therapeutic relationship be improved?)

The results found in this study describe a disparity between attitudes towards harm minimisation techniques and rates of utilisation. For example, provision of a razor has reasonable approval means and rankings with staff and service user groups but only has utilisation rates of 6-7%. Other techniques such as intramuscular medication given without consent and physical restraint have much higher mean scores (which indicates a lower approval rating) but are utilised much more frequently, as demonstrated in table 28.

Table 28: Comparison between approval ratings and rates of utilisation for three methods of managing self-cutting.

Method	Provision of a razor		Intramuscular medication		Physical restraint	
	Staff	Service user	Staff	Service user	Staff	Service user
Mean score	17.60	17.95	23.00	23.70	21.52	24.40
Rates of utilisation	6.29%	7.50%	32.57%	42.50%	33.71%	45.00%

4.11.8.2 Harm Minimisation in practice

Harm minimisation has been successfully utilised on inpatient wards (Batty, 1998) such as in the Dryll Y Car, a Welsh support unit in which patients who cut themselves were provided with sterile razor blades and given advice on how to decrease the longer-term effects of their behaviour (although this unit has now closed).

Birch et al (2011) measured rates of self-harm in three mental health units over 6 years and found that a positive risk-taking approach (within a wider consideration of institutional responses to self-harming behaviour) was linked to a reduction in harm overall. The authors do not cite the harm minimisation as causal in the reduction but do suggest that the consideration of risk and how it is approached can help to diminish that risk overall.

Combining harm minimisation techniques with highly specific care plan collaboration was used successfully by Holley et al (2012) although it was recognised that nursing staff had to be engaged with the idea.

A recent study by James et al (2017) found that of 18 mental health staff interviewed, four were actively utilising harm reduction techniques, nine were familiar with the concept but did not use it and five were entirely unfamiliar with the idea. James et al (2017) go on to state that harm minimisation remains a contentious issue and while the majority of staff feel that patients have the right to self-harm, they do not agree with said patients harming themselves within a safe and contained environment. Qualitative interviews divulged staff fears that allowing self-harm would cause the behaviour to escalate or was counter-intuitive to their own nursing principles and/or moral standpoint. However, the nurses with actual experience of harm minimisation techniques were described by James et al (2017) as reporting positive outcomes; a reduction in overall harm and the added benefit of more meaningful therapeutic alliances. The results reported above reflect the hesitancy to use harm minimisation techniques but also the apparent willingness of staff and service users to consider these techniques as alternatives to more commonly utilised methods.

4.11.9 Clinical Implications

Given the variety of functions of self-cutting, across time and both between and within even one individual, nurses must not assume what will work best in its management. Care planning must be a collaborative act and treatment should be discussed with the service user prior to the act, in terms of how all agencies involved feel it should be managed. 65% of the service users who responded to the AMScQ had admissions of over three months; 20% had been in hospitals for over two years. If not already in place, patients with lengthy admissions might benefit from the creation of advance statements (Reilly and Atkinson, 2010) so that treatment is given due consideration before it is necessary and not simply in response to a self-harming behaviour as it arises.

Overall, nurses' attitudes towards patients who self-harm are varied (Karman et al, 2015a; Saunders et al, 2012; McHale and Felton, 2010) and although training

on the topic appears to have a positive impact on attitudes, the studies which describe this phenomenon (examples being McAllister et al, 2009; Patterson, Whittington and Bogg, 2007b) rely mainly on self-report. However, where positive attitudes are reported, the nurses describe such emotions and attitudes as empathy and hopefulness; sentiments that are in keeping with the most approved management methods described on the AMScQ.

Nursing staff span a wide demographic range in terms of age, educational and clinical, experience, seniority; a healthcare assistant will have a different experience of working in an acute mental health ward than will a senior charge nurse. Such a broad population of people will be unlikely to all respond to a ward philosophy (Tofthagen, Talseth and Fagerström, 2014) or a set of clinical guidelines/policies (Beeley and Sarkar, 2013) in a uniform manner. Because self-harm and particularly harm reduction techniques have been shown to be a contentious management issue, it might, therefore, be worth considering the identification and handpicking of particular nursing staff who not only self-report but actively demonstrate the positive attributes required with this client group and who are prepared to consider minimisation techniques when other methods have failed. To impose the techniques on nursing staff who are unwilling or unhappy about their use would be counter-productive to the cause. This idea is in keeping with nurse opinions reported by Wilstrand et al (2007), who described the desire for mental health units that dealt specifically with service users who self-harm.

There also exist implications for pre- and post-registration training for mental health nurses with questions arising regarding the topic of self-harm and its management; when would be the optimum time to bring self-harm management into the teaching timetable? Should alternative treatments such as harm minimisation be mooted at an early stage so that students have more exposure to the idea during their training?

A detailed but accessible guide for working with patients who self-harm has been produced by the Department of Health Self-Harm Expert Reference Group (2012). The guide offers advice on the function of self-harm, useful methods for working collaboratively and constructively with a patient who self-harms in terms

of practical strategies and an introduction to a harm minimisation approach. The guide also encourages nursing staff to consider their own attitudes and approaches in against the wider background of nursing duty of care. Practical implications following the recognition of alternative methods of managing self-cutting might include the development of a clear pathway or algorithm which lays out harm reduction methods and when these should be discussed; the provision of first aid equipment for use by the service users, sterile cutting equipment and information on harm minimisation which is tailored towards the patient group, such as the NSHN (2000) guide; "Cutting the Risk: self-harm, self-care and risk-reduction"

4.11.10 Limitations and strengths of this study

Questionnaires act as a useful tool in quantitatively measuring aspects such as nurse or service user attitudes. They are subject, however, to such confounding variables as social desirability bias (van de Mortel, 2008). Mental health nursing staff are part of a wider healthcare profession in which compassion, empathy and understanding are expected as prerequisites. Answers on a questionnaire such as the AMScQ, therefore, might reflect this bias and have led to staff answering in a way that supports these merits of the nursing profession. Equally, the service users who took the time to answer the questionnaires may have done so because they felt strongly about this topic and overplayed their answers to highlight their cause.

The focus of the AMScQ was on respondents' recollections of past events, without any way of confirming actual events. The sample is non-random, and self-selecting in that participants were invited to volunteer their answers, thus bringing a degree of uncertainty of how well it represents the wider population of nursing staff and service users.

A relatively large number of nursing staff (175) responded to the questionnaire, in comparison to a small number of service users (40) and this is problematic in drawing direct comparisons between the attitudes of the two groups. Also unfortunate was the absence of male service-user responses. While this result appears to support papers which report a largely female population of those who

cut (Briere and Gil, 1998; Fujioka et al, 2012, etc.), the sample is not large enough to generalise and thought must be given to the recruitment of participants (via online support forums) which may be utilised by a predominantly female population (Mo, Malik and Coulson, 2009). Marchetto (2006) suspects that females may be more likely in general to discuss their self-harming behaviours and involve themselves in social research on the topic.

Within the questionnaire, respondents were invited to provide feedback on the design of the AMScQ and how easy they had found it to complete. A number of participants noted that they felt the questionnaire was too vague in that it did not lay out any context for the situation in which self-cutting was being managed. It was necessary in this instance to leave the questionnaire without circumstantial descriptions in order to draw a direct comparison between the subjective experiences of the nursing staff and the service users. The purpose on this occasion was to measure general attitudes towards measures of managing self-cutting and this method is not without precedent, Bowers et al's (2004) Attitudes to Containment Measures Questionnaire being a prime example. However, in future use of the AMScQ and specifically if the questionnaire is utilised within rather than between groups, it may be relevant to provide case vignettes (as per Huband and Tantam, 2000) to ground the study.

Bearing these limitations in mind, however, this study was a first in many ways. The literature review on self-cutting is the first to consider the behaviour as a specific form of self-harm and one that is very distinct from other forms of harm, in terms of aetiology, epidemiology and treatment. The second literature review on the attitudes of mental health nurses to self-harm is the first to consider this group of professionals as an independent entity. This is important, as within mental health hospitals it will be the nursing staff with whom the service users have the most frequent exposure. Although treatment is informed by the multidisciplinary team, it will fall to the nurses to enact these methods and to manage any self-harming behaviours over the span of a 24-hour setting. The AMScQ is a useful tool in that it measures not only general attitudes towards individual methods of management, but also specific measures that should inform said management technique, such as safety and acceptability. The

AMScQ is also relevant to both staff and service users, thus providing a universal view on the management of self-cutting.

4.11.11 Further studies

The use of the AMScQ, in this case, invited a UK-wide response from any nursing staff or previous service users with inpatient experience of cutting. There was no scope for recognition of specific guidelines or policies in place at ward or health board level. Future studies on the phenomenon of self-cutting need to narrow the focus. This might include using a tool such as the AMScQ within a small number of clinical areas so that the answers of the staff who adhere to different ward policies/guidelines can be compared. Equally, the AMScQ could be used to measure attitudes and reported rates of method utilisation between nursing staff and patients who are in direct clinical contact with each other so that results can be compared and contrasted.

With regard to the literature review on the topic of self-cutting, a number of models were proposed which strive to explain the aetiology of the behaviour (and thus inform the management) but there was little empirical evidence to support the models. Future studies might utilise both quantitative and qualitative methods to strengthen the evidence for and against the models that might allow more structured and streamlined treatment to occur. Equally, treatments for self-cutting must be directly contrasted and compared in trials that adhere to stringent experimental guidelines. This can be both in response to a cutting event as it occurs (for example contrasting the effectiveness of a harm minimisation technique in reducing the severity and frequency of an event compared to the use of passive or active distractions) or for the longer-term management of self-cutting, examples being wide-scale comparisons of therapies such as DBT and CBT.

Finally, consideration and further study might illustrate and build upon the hypothesis noted above; rather than attempt to train all nursing staff on the topic of self-harm (and run the risk of mental health nurses becoming involved in treatments to which they are morally opposed to and therefore unlikely to deliver to the best of their ability), instead hand pick individual members of staff who are

more open to a range and variety of techniques and therefore better able to work with a service user in a person-centred and therapeutically relevant manner.

4.12 Conclusion

The aim of this study was three-fold. First, review the attitudes of mental health nurses towards self-harm as an independent group. Second, review self-cutting as a discrete method of self-harm. Finally, use these literature reviews to inform the development of a questionnaire that measured both staff and service user attitudes towards how self-cutting is managed in acute hospital settings.
The first literature review revealed that not only do attitudes vary both within mental health nursing groups (based on differences in aspects such as demographics and level of training) but also between mental health nurses and other professional groups. Qualitative papers within the review highlighted the complexities that nurses bring to the care of their patients; their concerns and their understanding of how personal experiences and relationships contribute to their approach. When looking specifically at self-cutting as a means of self-harm, it became apparent that the existing literature was concerned with four areas; aetiology, epidemiology, treatment and the need for further study of this behaviour. When considering who cuts, the simple answer is that no-one group, (be that in terms of gender, age, nationality, etc.) is outstanding in being more likely to use this method of self-harm. Various aetiologies have been proposed with varying levels of merit, but the quantitative literature serves to remind us that self-cutting is a response to what may be a highly personalised and individual set of circumstances, which varies both across and within the people who utilise it. The literature regarding the variety and efficacy of the available treatments reflects this singular aspect of self-harm but also demonstrates the need for mental health nurses to have an awareness of and insight into their own response to the harm in which their patients engage. The noted necessity for further study is born out of a desire to move past the limitations of past studies, deliver appropriate interventions in the future and take steps to manage a health service that is already unwieldy.

With the above-noted topics in mind, the AMScQ was developed to measure attitudes of both nursing staff and service users towards how self-cutting is

managed in hospital wards. The questionnaire proved to be a reliable and valid tool and demonstrated differences both between two groups and within the nursing group based on participant demographics. Disparities existed in relation to approval ratings for seventeen distinct methods of management; thus, highlighting inconsistencies which may contribute towards turbulent relationships within a ward, rather than the desired therapeutic milieu. Also noted was the apparent paradox with regard to methods that endorse a harm minimisation approach; these were rated more highly in terms of approval than several other methods, such as IM and physical restraint, for which utilisation rates were much higher in comparison.

This thesis has described the successful development and testing of a valuable tool which has demonstrated significant discrepancies between staff and service user attitudes and highlighted a pathway for further study which may include developing a more targeted and refined approach to managing self-cutting.

Appendices

Appendix I – Research ethical approval form

Project Reference Number: SHS_R_2015-16_11

Project Title: **Attitudes towards and utilisation of techniques for managing self-cutting events in psychiatric inpatient wards; a comparison between service users and nursing staff**

Proposer: **Leah Godfrey**

Matriculation number: 0016092

Programme: MSc/MBA/MTech/LLM By Research (SHS), Stage 1

Supervisor: Geoff Dickens

The above Project has been granted Conditional approval with additional conditions as specified below.

Standard Conditions:

i The Proposer must remain in regular contact with the project supervisor.

ii The Supervisor must see a copy of all materials and procedures prior to commencing data collection.

iii If any substantive changes to the proposed project are made, a new ethical approval application must be submitted to the Committee. Completed forms should be resubmitted through the Research Ethics Blackboard course.

iv Any changes to the agreed procedures must be negotiated with the project supervisor.

Additional Conditions:

Ensure that the age ranges in the questionnaires are consistent - one has the age ranges starting at 20 when the study indicates 16 years+. Is parental consent required for under 18?

There seems to be a discrepancy between the comment on page 8 'the questionnaires will be anonymous' and then asking for a signature in Appendix 2 The Service user copy of participation information and consent sheet.

The process of consulting the service user, regarding the wording and the acceptability of the questionnaire items must completed and then vetted by the supervisory team.

Failure to comply with these conditions will result in ethical approval being revoked by the Ethics Committee.

SHS Research Ethics Committee

07.12.15

Appendix II: Attributes of quantitative papers on 'mental health nurse attitudes'

Study	Purpose/Aims	Sample	Country	Setting	Design/Data Collection	Instrument
Commons Treloar & Lewis, 2008 (a)	Assess the attitudes of mental health and emergency medicine staff towards BPD patients who self-harm	Health professionals (N=140, of which MH staff=90)	Australia and New Zealand	3x local health boards	Cross-sectional Correlational	Attitudes to deliberate self-harm questionnaire
Commons Treloar & Lewis, 2008 (b)	Assess impact of targeted education on BPD towards attitudes on self-harm	Health professionals (N=99, of which MH staff=66)	Australia and New Zealand	3x local health boards	Cross-sectional Correlational	Attitudes to deliberate self-harm questionnaire
Gibb, Beautrais & Surgenor, 2010	Examine attitudes towards self-harm patients and need for training amongst nursing staff	Healthcare professionals (N=195, of which RMN=56)	New Zealand	2x Hospitals (1x Emergency medicine and 1x Acute psychiatric)	Cross-sectional Correlational	Maslach Burnout Inventory and other self-harm questionnaire not specified
Hauck, Harrison & Montecalvo, 2013	Explore attitudes of psychiatric nurses towards patients with borderline personality disorder, experiencing self-harm	Psychiatric nurses (N=83)	USA	Behavioural in-patient units	Descriptive Correlational	Adapted Attitudes to Deliberate Self-Harm Questionnaire
Huband & Tantam, 2000	Investigate what factors govern professional attitudes and how these are affected by staff characteristics	Clinical staff within psychiatry (N=213)	UK	Directorate of general psychiatry within one NHS region	Cross-sectional Correlational	Authors' own attitude questionnaire
Muehlenkamp et al, 2013	Evaluate associations between self-harm training and attitudes	Healthcare professionals (N=342, of which RMN=89)	Belgium	12x hospital units (general and psychiatric)	Cross-sectional Correlational	Final attitudes scale
Patterson, Whittington & Bogg, 2007 (a)	Develop a brief, robust instrument for assessing attitude to self-harm	Health professionals (N=153, of which RMN=84)	Wales	Educational course	Longitudinal Correlational	Self-harm antipathy scale
Patterson, Whittington & Bogg, 2007 (b)	Measure effectiveness of educational intervention aimed at improving nurse attitudes	RMN (N=69)	Wales	Educational course	Longitudinal Quasi-experimental	Self-harm antipathy scale
Wheatley & Austin-Payne, 2009	Investigate relationship between self-harm behaviours and emotional response of staff	RMN (N=76)	UK	Private mental health hospital	Cross-sectional Correlational	Adaptation of Attributional style questionnaire, Emotional rating scale, Optimism/pessimism scale, Helping Behaviour scale

Appendix III: Attributes of qualitative papers on 'mental health nurse attitudes'

Study	Purpose/Aims	Sample	Country	Setting	Design/Data collection	Analysis methods
Batsleer, Chantler & Burman, 2003	Investigate service response to women of south-Asian background who self-harm	Mental health staff (N=18)	UK	Various statutory/voluntary organisations	Semi-structured interviews	Content/thematic analysis
Beeley & Sarkar, 2013	Explore the experience of nursing staff using an algorithmic approach to self-harm	Psychiatric ward staff (N=7)	UK	Women's enhanced medium secure unit	Semi-structured interviews	Thematic analysis
Karman et al, 2015	Explore how positive change in attitude contributes to change in professional behaviour in MH nurses	RMN (N=11)	The Netherlands	Self-harm training group	Semi-structured interviews	Grounded theory
O'Donovan & Gijbels, 2006	Gain understanding of nurse practice with people who self-harm but are not suicidal	RMN (N=8)	Ireland	2x acute psychiatric units	Semi-structured interviews	Thematic analysis
Reece, 2005	Query regarding what women are trying to communicate to nurses when they self-harm	Nurses (N=14)	UK	Unclear	Unstructured interviews	Qualitative content analysis
Slaven & Kisely, 2002	Explore the views of health staff on effective management of self-harm	RMN (N=5)	Australia	GP-led district hospital	Semi-structured interviews	Grounded theory/thematic analysis
Thompson, Powis & Carradice, 2008	Explore the experiences of community psychiatric nurses working with self-harm	CPN (N=8)	UK	2x community mental health teams	Semi-structured interviews	Interpretive phenomenological analysis
Tofthagen, Talseth & Fagerstrom, 2014	Explore the experiences of nursing staff working in an inpatient ward with self-harm	RMN (N=15)	Norway	4x psychiatric clinics	Semi-structured interviews	Content analysis
Wilstrand et al, 2007	Investigate nurses' descriptions of caring for patients who self-harm	RMN (N=6)	Sweden	Psychiatric hospital, inpatient wards	Narrative interviews	Content analysis

Appendix IV - Critical appraisal of quantitative papers on 'mental health nurse attitudes'

Study	Explicit aims	Sample size justification	Research independent of routine practice	Well described sample	Representative sample	Explicit inclusion criteria	Quantitative tool described	Validity and reliability justified	Discussion of generalisability	Statement of funding source	Score (out of 10)
Commons Treloar & Lewis, 2008 (a)	✓	✘	✓	✓	✓	✓	✓	✓	✓	✓	9
Commons Treloar & Lewis, 2008 (b)	✓	✘	✓	✓	✓	✓	✓	✓	✓	✓	9
Gibb, Beautrais & Surgenor, 2010	✓	✘	✓	✓	✓	✓	✓	✓	✓	✓	9
Hauck, Harrison & Montecalvo, 2013	✓	✘	✓	✓	✓	✓	✓	✓	✓	✓	9
Huband & Tantam, 2000	✓	✘	✓	✘	✓	✘	✘	✘	✘	✓	4
Muehlenkamp et al, 2013	✓	✘	✓	✓	✓	✘	✓	✘	✓	✘	6
Patterson, Whittington & Bogg, 2007 (a)	✓	✘	✓	✓	✓	✓	✓	✓	✓	✘	8
Patterson, Whittington & Bogg, 2007 (b)	✓	✘	✓	✓	✓	✓	✓	✓	✓	✘	8
Wheatley & Austin-Payne, 2009	✓	✘	✓	✓	✓	✘	✓	✘	✘	✘	5
Total (from 9)	9	0	9	8	9	6	8	6	7	5	

Appendix V - Critical appraisal of qualitative papers on 'mental health nurse attitudes'

Study	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	Score (out of 13)
Batsleer, Chantler & Burman, 2003	✓	✓	✓	✘	✘	✘	✘	✘	✓	✘	✓	✓	✓	7
Beeley & Sarkar, 2013	✓	✓	✓	✓	✘	✘	✓	✓	✓	✓	✓	✓	✓	11
Karman et al, 2015	✓	✓	✓	✓	✘	✓	✓	✓	✓	✓	✓	✓	✓	12
O'Donovan & Gijbels, 2006	✓	✓	✓	✓	✘	✘	✘	✓	✓	✓	✓	✓	✓	10
Reece, 2005	✘	✓	✓	✘	✘	✘	✘	✓	✓	✘	✓	✘	✓	6
Slaven & Kisely, 2002	✓	✓	✓	✓	✘	✓	✘	✘	✓	✓	✓	✓	✓	10
Thompson, Powis & Carradice, 2008	✓	✓	✓	✓	✘	✓	✓	✓	✘	✓	✓	✓	✓	11
Tofthagen, Talseth & Fagerstrom, 2014	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13
Wilstrand et al, 2007	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	13
Total (from 9)	8	9	9	7	2	5	5	7	8	7	9	8	9	

Key:

a) Explicit aims
b) Qualitative method appropriate
c) Design appropriate
d) Recruitment strategy appropriate
e) Setting of data collection described
f) Data collection methods clear
g) Question schedule included
h) Ethics discussed
i) Consent discussed
j) Description of analysis
k) Relationships considered
l) Clear statement of findings
m) Clarity of themes

Appendix VI – Attributes of quantitative papers on 'cutting'

Study	Aims	Sample	Country	Setting	Design
Andover et al, 2005	Examine differences in depressive/anxious symptoms in those who cut vs. those who do not	Psychology undergraduates (N=88)	USA	Psychology department, University.	Correlational Cross-sectional
Arensman et al, 2013	Examine differences between hospital treated cutting and intentional overdose	Patients (N=55228)	Ireland	A&E departments across 40 hospitals	Descriptive Longitudinal
Bergen et al, 2012	Estimate risk of suicide according to most recent method of self-harm	Patients (N=30202)	UK	A&E departments across 6 hospitals	Descriptive Longitudinal
Briere & Gil, 1998	Examination of antecedents to and effectiveness of cutting behaviour	Advert respondents (N=93)	USA	Non-clinical	Correlational Longitudinal
Carroll et al, 2016	Investigate whether site of cutting is associated with risk of subsequent suicide	Patients (N=3928)	UK	General hospitals x2	Correlational Prospective
Fujioka et al, 2012	Investigate differences between patients with deep and superficial lacerations	Patients (N=31)	Japan	Medical centre	Correlational Cross-sectional
Glenn & Klonsky, 2010	Examine the phenomenon of seeing blood; prevalence, functions and clinical correlates	College students (N=64)	Canada	College	Correlational Cross-sectional
Haines et al, 1995	Examine patterns of psychophysiological arousal related to cutting	Prisoners/non-prison controls (N=38)	Australia	Maximum-security prison	Correlational Cross-sectional
Haines & Williams, 1997	Consider coping strategies/resources and problem-solving skills of males who cut compared to controls	Prisoners/non-prison controls (N=50)	Australia	Prison/University	Correlational Retrospective
Hawton et al, 2004	Compare characteristics of those who cut and those who self-poison	Patients (N=14892)	UK	A&E department	Descriptive Longitudinal
Hayakawa, 2009	Investigate the efficacy of 15 minute bi-weekly psychotherapy sessions aimed at improving assertiveness to reduce cutting	Patients (N=13)	Japan	Psychiatric out-patient clinic	Quasi-experimental Longitudinal
Klonsky, 2009	Measure affective experience of self-injury	University undergraduates (N=39)	USA	Psychology department, University	Correlational Retrospective
Larkin et al, 2013	Examine psychological factors in those who cut compared to those who overdose	Patients (N=29)	Ireland	A&E department	Correlational Prospective
Larkin et al, 2014	Divide cutting into groups of severity and consider resulting characteristics related to repetition	Patients (N=9268)	Ireland	A&E department	Descriptive Longitudinal
Lilley et al, 2008	Compare patterns of hospital care repetition between cutting and self-poisoning	Patients (N=7344)	UK	A&E department	Correlational Prospective
Maloney, Shah & Ferguson, 1987	Presentation of cutting and its management in A&E over a 6-month period	Patients (N=81)	UK	A&E department	Descriptive Longitudinal
Marchetto, 2006	Examine relationship between cutting, BPD and parental bonding	Patients (N=517)	UK	A&E department	Correlational Retrospective
O'Loughlin & Sherwood, 2006	Examine trends of DSH over two decades	Patients (N=3151)	UK	A&E department	Descriptive Longitudinal
Perroud et al, 2012	Examine meaning of and consider timescales associated with cutting	Out-patients (N=22)	Switzerland	DBT out-patient group	Correlational Retrospective
Rosen & Thomas, 1984	Substitute a self-induced non-injurious muscular pain for cutting behaviours	Patients (N=3)	USA	Psychiatric hospital	Quasi-experimental Longitudinal
Sorketti & Zuraida, 2007	Compare motives and psychosocial stressors between self-cutting and self-poisoning	Patients (N=77)	Malaysia	Medical centre	Correlational Cross-sectional

Appendix VII – Attributes of qualitative papers on 'cutting'

Study	Aims	Sample	Country	Setting	Design/Data Collection	Analysis Method
Donskoy & Stevens, 2013	Explore memories of the pathway to first episode of self-wounding	People with at least one episode of self-wounding (N=11)	UK	Recruited as either current service users or via adverts in local press	Semi-structured interviews	Thematic/Narrative analysis
Harris, 2000	Investigate distress and experiences which lead to self-cutting	Ex-service users (N=6)	UK	Recruited via coordinator through national self-harm organisation	Correspondence study	None mentioned
Huband & Tantam, 2004	Explore pathways to self-wounding and patients' perceptions of the strategies used by staff to reduce it.	Service users (N=10)	UK	General psychiatry department	Semi-structured interviews	Grounded theory approach
Morris et al, 2015	Explore the context in which narratives of emotional experience and self-cutting developed	Service users (N=8)	UK	Personality Disorder out-patient group	Semi-structured interviews	Narrative analysis
Sternudd, 2014	Gain an understanding of why the visual mode is important for those who cut	Unclear	UK/USA	Self-injury support website	Identifying relevant accounts online	Content discourse analysis

Appendix VIII – Critical appraisal of quantitative papers on 'cutting'

Study	Explicit aims	Sample size justific-ation	Research independent of routine practice	Well described sample	Repre-sentative sample	Explicit inclusion criteria	Quant-itative tool described	Validity and reliability justified	Discussion of genera-lisability	Stateme nt of funding source	Score (of 10)
Andover et al, 2005	✓	✘	✓	✓	✘	✓	✓	✓	✓	✘	7
Arensman et al, 2013	✓	✘	✓	✓	✓	✓	✓	N/A*	✓	✓	8 (of 9)
Bergen et al, 2012	✓	✘	✓	✓	✓	✓	✓	N/A*	✓	✓	8 (of 9)
Briere & Gil, 1998	✓	✘	✓	✓	✓	✓	✓	✘	✓	✘	7
Carroll et al, 2016	✓	✘	✓	✓	✓	✓	✓	N/A*	✓	✘	7 (of 9)
Fujioka et al, 2012	✓	✘	✓	✓	✘	✘	✘	✘	✘	✘	3
Glenn et al 2010	✓	✘	✓	✓	✘	✓	✓	✓	✘	✘	6
Haines et al, 1995	✓	✘	✓	✘	✘	✘	✓	✘	✘	✘	3
Haines et al, 1997	✓	✘	✓	✓	✘	✘	✓	✘	✘	✘	4
Hawton et al,2004	✘	✘	✓	✓	✓	✓	✓	N/A*	✓	✓	7 (of 9)
Hayakawa, 2009	✓	✘	✓	✘	✘	✘	✓	✘	✘	✘	3
Klonsky, 2009	✓	✘	✓	✓	✓	✓	✓	✘	✓	✓	8
Larkin et al, 2013	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10
Larkin et al, 2014	✓	✘	✓	✓	✓	✓	✓	N/A*	✓	✓	8 (of 9)
Lilley et al, 2008	✓	✘	✓	✓	✓	✘	✓	N/A*	✓	✓	7 (of 9)
Maloney et al, 1987	✘	✘	✓	✓	✓	✘	✓	N/A*	✘	✘	4 (of 9)
Marchetto, 2006	✓	✘	✓	✓	✓	✓	✓	✓	✓	✘	8
O'Loughln et al, 2006	✓	✘	✓	✓	✓	✓	✓	N/A*	✓	✓	8 (of 9)
Perroud et al, 2012	✓	✘	✓	✓	✘	✓	✓	✘	✓	✘	6
Rosen et al, 1984	✓	✘	✓	✓	✘	✘	✘	✘	✘	✘	3
Sorketti et al, 2007	✓	✘	✓	✓	✓	✘	✓	✘	✘	✘	5
Total (from 21)	19	1	21	19	13	13	19	4 (from 13)	13	8	

Appendix IX – Critical appraisal of qualitative papers on 'cutting'

Cutting – Qualitative papers – Critical appraisal

Study	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	Score (out of 13)
Donskoy & Stevens, 2013	✓	✓	✓	✓	✓	✓	✘	✓	✓	✓	✓	✓	✓	12
Harris, 2000	✓	✓	✓	✓	✘	✘	✘	✘	✘	✘	✓	✓	✓	7
Huband & Tantam, 2004	✓	✓	✓	✓	✘	✓	✘	✓	✓	✓	✓	✓	✓	11
Morris et al, 2015	✓	✓	✓	✓	✓	✓	✘	✓	✘	✓	✓	✓	✓	11
Sternudd, 2014	✘	✓	✓	✓	✘	✘	✘	✘	✓	✓	✓	✓	✓	8
Total (from 5)	4	5	5	5	2	3	0	3	3	4	5	5	5	

Key:

a) Explicit aims
b) Qualitative method appropriate
c) Design appropriate
d) Recruitment strategy appropriate
e) Setting of data collection described
f) Data collection methods clear
g) Question schedule included
h) Ethics discussed
i) Consent discussed
j) Description of analysis
k) Relationships considered
l) Clear statement of findings
m) Clarity of themes

Appendix X – Participant information and consent forms (service users)

Attitudes towards management of self-cutting questionnaire (AMScQ – service users)

We would like to invite you to take part in a research study. Before you decide you need to understand what the research involves and what participation would involve for you. Please read the following information carefully. If you require any further information, please do not hesitate to ask.

The research is part of a Masters project being conducted by Leah Godfrey, under the supervision of Professor Geoff Dickens and Kate Smith of Abertay University. The study is looking at the ways in which self-harming events are managed on a mental health inpatient ward; the methods that staff have experience of utilising, and service users have been subject to, and their attitudes towards these. This study will contribute to the larger body of research pertaining to self-harm and will help inform future evidence based nursing practice.

You have been invited to take part in this study because you may have personal experience of self-cutting while in a psychiatric ward. Your experiences are invaluable to the research and your participation is very much appreciated.

Participation is entirely voluntary and completely anonymous. You are free to withdraw during the questionnaire, without having to give a reason. You will be asked to indicate consent below to demonstrate that you are willing to take part, should you proceed.

Your participation will consist of completing three questionnaires, in one sitting. These should take about 15 minutes in total. The questionnaires will be anonymous and no personal identifying information will be gathered, although there will be some questions on demographics (age, gender, etc).

Please note that the questionnaires will ask questions about your experience of self-cutting, and we recognise that this may cause distress. Should this occur, we would remind you that you can withdraw at any point. We suggest that you contact your mental health service provider, GP, Breathing Space (0800 838587) or NHS 24 (111) should you require support upon completion of the questionnaires.

If you have concerns regarding any aspect of the study, you can email the researcher - I can be contacted at 0016092@abertay.ac.uk and will do my best to answer any questions. If you are unhappy you can contact the supervisory team (Professor Geoff Dickens: g.dickens@abertay.ac.uk or Kate Smith: kate.smith@abertay.ac.uk) or the Abertay University Complaints Department (complaints@abertay.ac.uk).

PLEASE TICK THE BOX BELOW

I agree to participate in this study and have read the participant information
O Yes
O No

Appendix XI – Participant information and consent forms (staff)

Attitudes towards management of self-cutting questionnaire (AMScQ – staff)

We would like to invite you to take part in a research study. Before you decide you need to understand what the research involves and what participation would involve for you. Please read the following information carefully. If you require any further information, please do not hesitate to ask.

The research is part of a Masters project being conducted by Leah Godfrey, under the supervision of Professor Geoff Dickens and Kate Smith of Abertay University. The study is looking at the ways in which self-harming events are managed on a mental health inpatient ward; the methods that staff have experience of utilising, and service users have been subject to, and their attitudes towards these. This study will contribute to the larger body of research pertaining to self-harm and will help inform future evidence based nursing practice.

You have been invited to take part in this study because you have experience of nursing patients in an inpatient setting where self-cutting may have occurred. Your experiences are invaluable to the research and your participation is very much appreciated.

Participation is entirely voluntary and completely anonymous. You are free to withdraw during the questionnaire, without having to give a reason. You will be asked to indicate consent below to demonstrate that you are willing to take part, should you proceed.

Your participation will consist of completing three questionnaires, in one sitting. These should take about 15 minutes in total. The questionnaires will be anonymous and no personal identifying information will be gathered, although there will be some questions on demographics (age, gender, etc).

Please note – the questionnaires will ask questions about your experience of self-cutting vents and we recognise that this may cause distress. Should this occur, we would remind you that you can withdraw at any point. We suggest that you contact your line manager, clinical supervisor or occupational health service should you require support upon completion of the questionnaires.

If you have concerns regarding any aspect of the study, you can email the researcher - I can be contacted at 0016092@abertay.ac.uk and will do my best to answer any questions. If you are unhappy you can contact the supervisory team (Professor Geoff Dickens: g.dickens@abertay.ac.uk or Kate Smith: kate.smith@abertay.ac.uk) or the Abertay University Complaints Department (complaints@abertay.ac.uk).

PLEASE TICK THE BOX BELOW

I agree to participate in this study and have read the participant information
O Yes
O No

Appendix XII - Item factor loadings following principal components analysis of AMScQ

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
4a	0.72																
4b	0.78																
4c	0.64																
4d	0.69																
4e	0.76																
4f	0.77																
5a	0.78																
5b	0.83																
5c	0.69																
5d	0.80																
5e	0.82																
5f	0.78																
11a		0.82															
11b		0.67															
11c		0.84															
11d		0.85															
11e		0.85															
11f		0.78															
17a			0.849														
17b			0.898														
17c			0.909														
17d			0.903														
17e			0.903														
17f			0.917														
8a				0.80													
8b				0.94													
8c				0.91													
8d				0.91													
8e				0.92													
8f				0.92													
12a					0.88												
12b					0.88												
12c					0.87												
12d					0.88												
12e					0.90												
12f					0.90												
15a						0.78											
15b						0.87											
15c						0.87											
15d						0.85											
15e						0.82											
15f						0.88											
13a							0.93										
13b							0.92										
13c							0.87										
13d							0.86										
13e							0.92										
13f							0.83										
14a								0.86									
14b								0.89									
14c								0.77									
14d								0.90									
14e								0.91									
14f								0.92									
7a									0.88								
7b									0.91								
7c									0.88								
7d									0.78								
7e									0.91								
7f									0.84								
10a										0.87							
10b										0.84							
10c										0.79							
10d										0.84							
10e										0.81							
10f										0.87							
9a											0.72						
9b											0.81						
9c											0.77						
9d											0.76						
9e											0.80						
9f											0.80						
6a												0.83					
6b												0.92					

6c												0.87					
6d												0.83					
6e												0.93					
6f												0.84					
3a													0.89				
3b													0.89				
3c													0.84				
3d													0.88				
3e													0.81				
3f													0.88				
18a														0.77			
18b														0.83			
18c														0.81			
18d														0.85			
18e														0.86			
18f														0.85			
2a															0.76		
2b															0.84		
2c															0.83		
2d															0.78		
2e															0.79		
2f															0.83		
16a																0.71	
16b																0.75	
16c																0.77	
16d																0.76	
16e																0.71	
16f																0.76	
1a																	0.71
1b																	0.75
1c																	0.77
1d																	0.76
1e																	0.71
1f																	0.76

Appendix XIII AMScQ with demographics (staff version)

Demographics

Please circle the appropriate answer

Gender:

Male Female

Age:

Under 20 20-29 30-39

40-49 50-59 60-69

Position:

Student Nurse NA/HCA Registered Nurse

We would like to know what you think about different methods used to manage self-cutting events on a mental health ward. Please read each statement carefully and tick the boxes that apply. Each method will be described and you will be asked to rate whether it is acceptable, effective, safe and respects patients' dignity. Please answer all questions. If you are not sure about a response, please make a judgement as best you can. As a last resort, it is better to guess than to leave a question unanswered. If you change your mind at any time, you can stop.

Thank you for your participation.

Attitudes towards Management of Self-cutting Questionnaire (AMScQ – staff version)

Providing a first aid kit containing dressings, steristrips, etc for wound care

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Providing advice on wound care, cleaning and signs of infections

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Being present to offer support during a cutting event

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Increase observation beyond general level to special level (patient remains within touching distance at all times)

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Increase observation beyond general level to close level (patient remains within sight at all times)

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Conducting inappropriate medical treatment – e.g. stitching wounds without anaesthetic

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Refusing to administer medical treatment/nursing care

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Suggesting or advising safe alternatives to cutting – e.g. pinging elastic bands, using ice cubes, drawing on self with red pen

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Delivering therapeutic interventions aimed at reduction of self-harming behaviours – e.g. problem-solving approaches, considering why a person cuts

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Administering forced/coerced IM medication – injection of intramuscular medication (e.g. sedatives) without consent

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Working with the individual to develop a person-centred, individualised risk assessment and management/care plan to address cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Seclusion/Isolation – patient being removed to their room or specified safe area of the ward

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Providing sterile cutting implements such as razors or scalpels

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Increase observation beyond general level to intermittent level (patient is checked on at predetermined intermittent times by staff e.g. every 10 minutes) to prevent cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Making other nursing/healthcare staff aware that a person is cutting, or informed of intent to cut or ideation about cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Suggesting or advising safe alternatives to cutting – distraction techniques, relaxation techniques, engaging in unrelated activities

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who implement it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Administration of PRN medication as prescribed with consent to help cope with feelings that may lead to cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Prevent patient cutting by implementing physical restraint i.e. safe patient restraint/control and restraint techniques

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to use this method					
7	I have used this method	Yes	No			

Appendix XIV – AMScQ with demographics (service user version)

Demographics

Please circle the appropriate answer

Gender:

Male Female

Age:

Under 20 20-29 30-39 40-49

50-59 60-69 70 or older

Approximate length of time spent in a psychiatric ward (can be over multiple admissions)

0-3 months 3-6 months 6-12 months

1-2 years 2 years or more

We would like to know what you think about different methods used to manage self-cutting events on a mental health ward. Please read each statement carefully and tick the boxes that apply. Each method will be described and you will be asked to rate whether it is acceptable, effective, safe and respects patients' dignity. Please answer all questions. If you are not sure about a response, please make a judgement as best you can. As a last resort, it is better to guess than to leave a question unanswered. If you change your mind at any time, you can stop.

Thank you for your participation.

Attitudes towards Management of Self-cutting Questionnaire (AMScQ – service user version)

Providing a first aid kit containing dressings, steristrips, etc for wound care

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Providing advice on wound care, cleaning and signs of infections

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Being present to offer support during a cutting event

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Increase observation beyond general level to special level (patient remains within touching distance at all times)

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Increase observation beyond general level to close level (patient remains within sight at all times)

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Conducting inappropriate medical treatment – e.g. stitching wounds without anaesthetic

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Refusing to administer medical treatment/nursing care

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Suggesting or advising safe alternatives to cutting – e.g. pinging elastic bands, using ice cubes, drawing on self with red pen

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Delivering therapeutic interventions aimed at reduction of self-harming behaviours – e.g. problem-solving approaches, considering why a person cuts

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Administering forced/coerced IM medication – injection of intramuscular medication (e.g. sedatives) without consent

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Working with the individual to develop a person-centred, individualised risk assessment and management/care plan to address cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Seclusion/Isolation – patient being removed to their room or specified safe area of the ward

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Providing sterile cutting implements such as razors or scalpels

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Increase observation beyond general level to intermittent level (patient is checked on at predetermined intermittent times by staff e.g. every 10 minutes) to prevent cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Making other nursing/healthcare staff aware that a person is cutting, or informed of intent to cut or ideation about cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Suggesting or advising safe alternatives to cutting – distraction techniques, relaxation techniques, engaging in unrelated activities

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who implement it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Administration of PRN medication as prescribed with consent to help cope with feelings that may lead to cutting

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Prevent patient cutting by implementing physical restraint i.e. safe patient restraint/control and restraint techniques

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1	This method is effective					
2	This method is acceptable					
3	This method respects patients' dignity					
4	This method is safe for staff who use it					
5	This method is safe for the patient who is subject to it					
6	I would be prepared to be subject to this method					
7	I have been subjected to this method	Yes	No			

Appendix XV - Attitudes to Containment Measures (ACMQ - Staff)

We'd like to know what you think about different methods used to contain disturbed behaviour. Please read each statement carefully, and then tick the box that applies. Not all these containment methods are in use in the UK, but all of them are in use in at least one European country. We will describe each one and then ask you to rate your responses to how acceptable each method is. It is important that you complete this questionnaire by yourself, without conferring with others or trying to find out what their answers are. When the questionnaire is complete you may discuss it with others. Please answer all questions. If you are not sure about your response, please make a judgement as best as you can. As a last resort, it is better to guess than to leave a question unanswered. If you do not wish to complete the questionnaire just leave it blank. If you change your mind at any time you can stop.

1.a) PRN MEDICATION: Medication given at the nurses' discretion, in addition to regular doses, by any route, and accepted voluntarily.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

1.b) I have used **PRN MEDICATION**

Yes	No

2.a) PHYSICAL RESTRAINT: Physically holding the patient, preventing movement.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

2.b). I have used **PHYSICAL RESTRAINT**

Yes	No

3.a) INTERMITTENT OBSERVATION: An increased level of observation, of greater intensity than that which any patient generally receives, coupled with allocation of responsibility to an individual nurse or worker. Periodic checks at intervals.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

3.b). I have used **INTERMITTENT OBSERVATION**

Yes	No

4.a) SECLUSION: Isolated in a locked room

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

4.b). I have used **SECLUSION**

Yes	No

5.a) TIME OUT: Patient asked to stay in room or area for a period of time, without the door being locked.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

5.b). I have used **TIME OUT**

Yes	No

6.a) COMPULSORY INTRAMUSCULAR SEDATION: Intramuscular injection of sedating drugs given without consent.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

6.b). I have used **COMPULSORY INTRAMUSCULAR SEDATION**

Yes	No

7.a) PSYCHIATRIC INTENSIVE CARE: Transfer to a specialist locked ward for disturbed patients.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

7.b). I have used **PSYCHIATRIC INTENSIVE CARE**

Yes	No

8.a) MECHANICAL RESTRAINT: The use of restraining straps, belts, or other equipment to restrict movement.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

8.b). I have used **MECHANICAL RESTRAINT**

Yes	No

9.a) CONSTANT OBSERVATION: An increased level of observation, of greater intensity than that which any patient generally receives, coupled with allocation of responsibility to an individual nurse or other worker. Constant: within eyesight or arms reach of the observing worker at all times.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

9.b). I have used **CONSTANT OBSERVATION**

Yes	No

10.a) NET BED: Patient placed in a net bed enclosed by locked nets, which he or she is unable to leave.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

10.b). I have used **NET BED**

Yes	No

11.a) OPEN AREA SECLUSION: Isolated in a locked area, accompanied by nurses.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

11.b). I have used **OPEN AREA SECLUSION**

Yes	No

Appendix XVI - Attitudes to Containment Measures (ACMQ – Service Users)

We'd like to know what you think about different methods used to contain disturbed behaviour. Please read each statement carefully, and then tick the box that applies. Not all these containment methods are in use in the UK, but all of them are in use in at least one European country. We will describe each one and then ask you to rate your responses to how acceptable each method is. It is important that you complete this questionnaire by yourself, without conferring with others or trying to find out what their answers are. When the questionnaire is complete you may discuss it with others. Please answer all questions. If you are not sure about your response, please make a judgement as best as you can. As a last resort, it is better to guess than to leave a question unanswered. If you do not wish to complete the questionnaire just leave it blank. If you change your mind at any time you can stop.

1.a) PRN MEDICATION: Medication given at the nurses' discretion, in addition to regular doses, by any route, and accepted voluntarily.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

1.b) I have been subjected to **PRN MEDICATION**

Yes	No

2.a) PHYSICAL RESTRAINT: Physically holding the patient, preventing movement.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

2.b). I have been subjected to **PHYSICAL RESTRAINT**

Yes	No

3.a) INTERMITTENT OBSERVATION: An increased level of observation, of greater intensity than that which any patient generally receives, coupled with allocation of responsibility to an individual nurse or worker. Periodic checks at intervals.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

3.b). I have been subjected to **INTERMITTENT OBSERVATION**

Yes	No

4.a) SECLUSION: Isolated in a locked room

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

4.b). I have been subjected to **SECLUSION**

Yes	No

5.a) TIME OUT: Patient asked to stay in room or area for a period of time, without the door being locked.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

5.b). I have been subjected to **TIME OUT**

Yes	No

6.a) COMPULSORY INTRAMUSCULAR SEDATION: Intramuscular injection of sedating drugs given without consent.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

6.b). I have been subjected to **COMPULSORY INTRAMUSCULAR SEDATION**

Yes	No

7.a) PSYCHIATRIC INTENSIVE CARE: Transfer to a specialist locked ward for disturbed patients.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

7.b). I have been subjected to **PSYCHIATRIC INTENSIVE CARE**

Yes	No

8.a) MECHANICAL RESTRAINT: The use of restraining straps, belts, or other equipment to restrict movement.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

8.b). I have been subjected to **MECHANICAL RESTRAINT**

Yes	No

9.a) CONSTANT OBSERVATION: An increased level of observation, of greater intensity than that which any patient generally receives, coupled with allocation of responsibility to an individual nurse or other worker. Constant: within eyesight or arms reach of the observing worker at all times.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

9.b). I have been subjected to **CONSTANT OBSERVATION**

Yes	No

10.a) NET BED: Patient placed in a net bed enclosed by locked nets, which he or she is unable to leave.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

10.b). I have been subjected to a **NET BED**

Yes	No

11.a) OPEN AREA SECLUSION: Isolated in a locked area, accompanied by nurses.

	Strongly Agree	Agree	Uncertain	Disagree	Strongly Disagree
Is acceptable					

11.b). I have been subjected to **OPEN AREA SECLUSION**

Yes	No

Appendix XVII– Adjusted version of SHAS

Please indicate the extent to which you agree or disagree with each statement below based upon your own knowledge, beliefs and experience. Please answer all the questions. 'Self-harm' here includes individuals who deliberately or consciously engage in harming themselves by a variety of means but who are not considered to be making a direct attempt to kill themselves, including individuals of all ages and excluding those who do not understand the consequences of their actions.

Self-Harm Antipathy Scale	Strongly agree	Agree	Tend to agree	Uncertain	Tend to disagree	Disagree	Strongly disagree
People who self-harm are usually trying to get sympathy from others							
People should be allowed to self-harm in a safe environment							
A rational person can self-harm							
When individuals self-harm it is often to manipulate carers							
People who self-harm are typically trying to get even with someone							
An individual has the right to self-harm							
Self-harm is a serious moral wrongdoing							
There is no way of reducing self-harm behaviours							
People who self-harm lack solid religious convictions							
Self-harm may be a form of reassurance for the individual that they are really alive and human							
Self-harming individuals can learn new ways of coping							
Acts of self-harm are a form of communication to their situation							
A person who self-harms is only trying to get attention							
For some individuals self-harm can be a way of relieving tension							
People who self-harm have a great need for acceptance and understanding							
A person who self-harms deserves the highest standards of care on every occasion							
I would feel ashamed if a member of my family self-harmed							

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